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ABSTRACT

Addressing the problem of the language-related barriers to successful postsecondary education for underprepared college students, an assessment of academic language proficiency and a curriculum to help students improve their academic language skills were developed. The nature of the language tasks required in the undergraduate curriculum was defined, and the nature of the academic language used in college lectures and textbooks was studied. Decisions regarding the assessment format were based directly on the results of field testing. The curriculum emphasizes vocabulary development because this was identified through analyses of test results as the most important barrier to lecture and text comprehension. The curriculum also includes lessons on lecture structure and the cues professors use to indicate their lecture organization. A third part of the curriculum focuses on reading skills and strategies. Implementation of the assessment and the curriculum occurred at eight sites during the final year of the three-year program. Results of implementation in three classes at Madera High School indicate significant increases in student academic language skills. Detailed evidence from the field tests and curriculum implementation led to the conclusion that academic language is a second language for all students from all backgrounds. (Appendixes contain information for Fund for the Improvement of Postsecondary Education; six figures of data; dictionary and vocabulary icon examples; normative descriptive information and writing score rubrics; academic language pretest and posttest; and a 14-item list of presentations and publications of the program.) (RS)

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ED 415 498

Executive Summary

Project Title: Assessment of Academic Literacy Skills: Preparing Minority and LEP (Limited English Proficient) Students for Postsecondary Education

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A. Project Overview

The project idea developed from observations made of U.S. high school graduates tracked into precollege ESL or remedial programs. ESL programs are increasingly getting students who have had all of their schooling in U.S. schools, but whose home language is not English. These U.S. educated students are problematic for ESL teachers because they have generally not been educated in their first language and are not highly proficient in English. They do not fit in the ESL classes designed for international students and resent being placed there. Parallel to their placement in ESL is the placement of other U.S. high school graduates in remedial or developmental classes, designed to teach college reading and study skills. For neither type of student is there a test that provides detailed information about their specific language needs for successful college work.

B. Purpose

The problem addressed was identification of the language-related barriers to successful postsecondary education for underprepared college students. The project goals were a) to develop an assessment of academic language proficiency and b) to develop a curriculum to help students improve their academic language skills. In order to develop an authentic assessment, the nature of the language tasks required in the undergraduate curriculum was defined, and the nature of the academic language used in college courses was studied. The assessment includes a pretest and a posttest. Scores are reported on an academic language profile based on the test tasks included in the assessment. The curriculum focuses on the major language skill differences that distinguish the underprepared students from the well-prepared students. Both the assessment and the curriculum are based on videotaped college lectures and college textbook excerpts.

C. Background and Origins

An understanding of the context for the project requires a discussion of 1) assessment issues, 2) language acquisition theory and curricular issues, and 3) political issues. 1) Although the performance (authentic) assessment movement has been active for at least a decade, high schools, colleges, and ESL programs generally rely on standardized multiple choice tests to measure entrance, placement, and exit criteria.

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Such tests are unrelated to the actual language tasks required of students in college and have only low to moderate correlations with college grades.

2) During the last decade, California schools and schools in other states have used the "whole language" approach to language learning. The approach is based on the assumption that literacy, like spoken language, is learned naturally as long as enough exposure is given to students. For this reason, specific instruction in reading, phonics, spelling, and correct writing have been neglected. California is in the process of changing the whole language emphasis, but resistance to specific contextualized instruction is still found among teachers.

College study skills teachers usually depend upon a commercial book to structure their course and do not make major academic demands on students. These instructors are often not well-versed in the requirements of regular college classes and base their teaching on the book content or their intuition about "what students need to know." High school teachers who try to prepare students for college may also be relying on their memory and intuition regarding college needs and requirements.

3) Minority students are significantly less likely than their majority counterparts to graduate from college. A lack of adequate academic language skills preparation has been identified as a primary cause of the revolving door of minority student admissions in postsecondary education. As resources dwindle and tuition costs continue to rise, public and political opposition to funding remedial classes and affirmative action programs in postsecondary education have increased, making student preparation for college an even more critical task for the high schools.

D. Project Descriptions

Details of activities and results of the first two years were included in the renewal reports submitted each year. Project activities were necessary steps in the process of developing a valid and reliable assessment and a valid curriculum.

Decisions regarding the assessment format were based directly on the results of the field testing (years one and two). The field test samples included a wide range of student language backgrounds and student preparation in academic language.

The test tasks include: 1) Lecture note-taking, 2) Lecture note short answer question, 3) Dictation of lecture sentences, 4) Academic vocabulary self-assessment, reading, 5) Academic vocabulary self-assessment, dictation, 6) Reading sentence completion, 7) Reading content importance , 8) Reading note-taking, and 9) Reading notes short answer question. Detailed descriptions of these test tasks are included in the full project report and examples of group mean scores are included in Appendix B. Copies of both tests are included in Appendix E and F.

The curriculum emphasizes vocabulary development because this was identified through analyses of field test results as the most important barrier to lecture and text comprehension. The curriculum also includes lessons on lecture structure and the cues professors use to indicate their lecture organization. Students can be taught to recognized these cues. A third part of the curriculum focuses on reading skills and strategies.

Two other sections deal with sentence complexity and the academic culture. Many of the students who will use the assessment and curriculum are the first in their

family to have college aspirations and opportunities and they may be unfamiliar with the academic culture.

E. Evaluation/Project Results

The evaluation approach for this project was formative, relying on results of field testing of assessment tasks and curriculum exercises to support the development of a valid assessment procedure and a usable, effective curriculum. Implementation during the final year occurred at eight sites, with more planned in the future.

Effectiveness evidence is provided in detail in the full report for the three classes at Madera High School that used the curriculum and both assessments. The results show significant increases in student academic language skills. Teacher observations and student comments about their academic language development are included in the full report and support the usefulness and effectiveness of the curriculum.

The most important barrier to comprehension of lectures and text for underprepared students is the lack of academic vocabulary knowledge. Academic vocabulary includes words and phrases commonly used in lectures and texts, but not commonly used in everyday speech. Academic vocabulary is subtechnical; it includes words and phrases used in all disciplines and is not the technical vocabulary of the discipline. These words and phrases that are used by faculty to describe and teach the technical information of the discipline are a barrier to comprehension for the underprepared student.

F. Summary and Conclusions

Detailed evidence from the field tests and curriculum implementation led to the conclusion that academic language is a second language for all students from all backgrounds.

The need for intervention for students is clearly demonstrated by the results. Some students will develop excellent academic language skills just through exposure in high school, but many will not become highly proficient in academic language without direct instruction, especially in vocabulary. As funding for remedial programs and affirmative action decreases, the need for good postsecondary preparation in the high schools is more urgent than it has been in the past. Academic language skills are essential to success in postsecondary education. Although there are efforts to reform college teaching, the lecture has been the main method of teaching for hundreds of years and will not change in the near future. As budgets decrease and enrollments increase, large lecture delivery of courses is on the rise, not on the decline. The language of college texts will not change; students must be prepared to handle the language tasks they will face in college if they want to benefit from their postsecondary opportunities.

G. Appendices.

Appendices are attached to the full report. These include score reports from several implementation sites, examples from the student dictionary, normative information, and copies of the pretest and posttest.

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Cover Sheet

Grantee Organization

California State University, Fresno
Fresno, CA 93740

Grant Number:

P116B20933

Project Dates:

Starting Date:	10/1/92
Original Ending Date:	9/30/95
No-Cost Extension Date:	1/31/96

Project Director:

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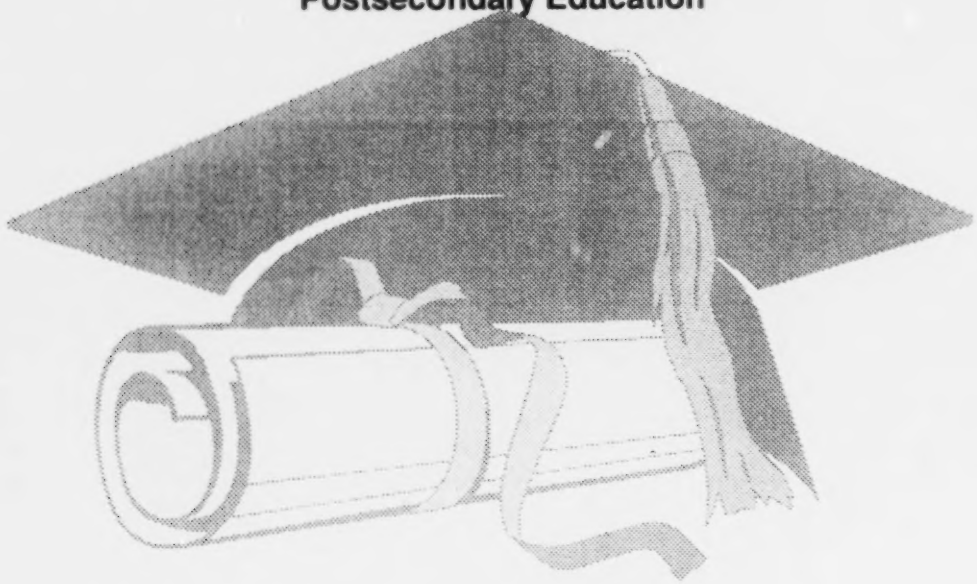
FIPSE Program Officer: Charles Storey

Grant Award:

Year 1	$100,268
Year 2	$ 96,161
Year 3	$ 98,560
Total	$294,989

Assessment of Academic Literacy Skills: Preparing Minority and LEP (Limited English Proficient) Students for Postsecondary Education



"I now find myself tearing words apart to find their meanings, especailly when I'm not sure of their origin. For me this is an enormous leap! Many new words and definition now add flavor to my verbal and written communications. I'm even able to season all this with a dash of Academic Language. I've spent many weeks picking my brain trying to understand the mysterious Academic Language. I felt like Alice when she was talking to the Caterpillar, he wanted to know who she was and she replied, "I-I hardly know, sir, just at present at least I know who I was when I got up this morning, but I think I must have been changed several times since then." And boy have I been changed by knowledge. I thought if I heard that Dr.'s name [Project Director] again, I'd scream! Hauntingly, I gained a profound likeness for her. Being a junior in high school, I am very intimidated by the thought of college. I feel stronger knowing I am equipped with note-taking skills, listening skills, vocabulary, and most importantly I am equipped with more knowledge. Now I can raise my head high and say that I honestly know what a Bildungsroman is. Can you? As I said before, I have taken a huge leap in understanding this Academic Language."

-- Madera High School Junior

Fund for the Improvement of Postsecondary Education (FIPSE)
U.S. Department of Education

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Dr. Ida Jones, Professor of Business Law, CSU Fresno speaking to students at Madera High School.

Madera High School students with their group lecture notes from the videotaped lecture by Dr. Ida Jones.

Fresno City College Upward Bound Program students participating in academic language pretest.

Fresno City College Upward Bound Program students participating in academic language pretest.

CSU Fresno Speech 10T Freshman College Experience students participating in academic language pretest.

CSU Fresno University 20T College Planning Skills class students participating in academic language pretest.

Kings River Community College Reading Skills class students participating in academic language curriculum.

Kings River Community College Upward Bound Program students participating in academic language pretest.

Full Report

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A. Project Overview

The project idea developed from observations made of U.S. high school graduates tracked into precollege ESL or remedial programs. The project director had extensive experience as an ESL instructor in precollege programs. ESL programs are increasingly getting students who have had all of their schooling in U.S. schools, but whose home language is not English. These U.S. educated students are problematic for ESL teachers because they generally have not been educated in their first language and are not highly proficient in English. They do not fit in the ESL classes for international students and resent being placed there. Parallel to their placement in ESL is the placement of other U.S. high school graduates in remedial or developmental classes, designed to teach college reading and study skills. For neither kind of student was there a test that provided detailed information about their specific language needs for successful college work.

B. Purpose

The problem addressed was the language-related barriers to successful postsecondary education for underprepared college students. The project goals were a) to develop an assessment of academic language proficiency to understand the language strengths and areas of weakness of college-bound students and b) to develop a curriculum to help students improve their academic language skills. In order to develop an authentic assessment, the nature of the language tasks required in the undergraduate curriculum was defined, and the nature of the academic language used in college courses was studied. The assessment includes a pretest and a posttest, and yields an academic language profile based on the test tasks included in the assessment (see Appendix B). The curriculum focuses on the major language skill differences that distinguish the underprepared students from the well-prepared students.. Detailed analyses of the extensive field testing of a wide range of students on the assessment tasks resulted in a definition of the these differences and of the curriculum. Both the assessment and the curriculum are based on videotaped college lectures and college textbook excerpts.

C. Background and Origins: Context for Project

Assessment Issues:

Although the performance (authentic) assessment movement has been active for at least a decade, high schools, colleges, and ESL programs generally rely on standardized multiple choice tests for entrance, placement, and exit criteria. Such tests are unrelated to the actual language tasks required of students in college and have only low to moderate correlations with college grades. Typically such tests underpredict success for minority, female, and second language students. The composite numbers reported as test results do not give students, teachers, counselors, or parents any information about the nature of the strengths or weaknesses students might have in

language preparation, or any indication of how students can improve their skills. Preparation for such college entrance tests usually involves expensive coaching programs outside the high school curriculum and the attempted memorization of unusual vocabulary that might appear on the test. The tests serve to narrow the curricular approach to preparation for postsecondary education rather than to expand general language preparation efforts.

Language Acquisition Theory and Curricular Issues:

During the last decade, California schools and schools in other states have used the "whole language" approach to language learning. The approach is based on the assumption that literacy, like spoken language, is learned naturally as long as enough exposure is given to students. Teachers are told that language acquisition (which occurs through exposure) is superior to language learning (which occurs through the teaching of discrete skills). For this reason, specific instruction in reading, phonics, spelling, and correct writing have been neglected. California is in the process of changing the whole language emphasis, but resistance to specific contextualized instruction in academic language, reading of expository text, writing, and vocabulary study is still found among teachers trained only in the promises of the whole language approach. For this reason, interest in implementation of the project required recognition from key players (teachers and administrators) of the nature of language development, the length of time and complexity involved in language instruction, and the need for assessing student language skills.

Resistance to the program because of whole language teaching orientation is only part of the issue of teacher commitment to this language program. Study skills teachers are usually dependent upon a commercial book to structure their course and do not make major demands on students. These instructors are not well-versed in the requirements of regular college classes and base their teaching on the book content or their intuition about "what students need to know." High school teachers who do try to prepare students for college are also relying on their memory and intuition regarding college needs and requirements. They take for granted that students know how to take notes from lecture and reading and know how to summarize text. The also take for granted that students have developed academic vocabulary and language skills. In college and high school ESL programs, the language goals are often even more vague and are generally not based on a thorough analysis of the language skills students need to be successful in the high school or college curriculum.

For the bilingual or second language students in the public school system, preparation for academic language tasks is typically not emphasized. As they become more fluent in English, or develop spoken language proficiency, many students are mainstreamed or reclassified fully proficient in English (FEP), typically through the use of teacher or counselor judgment or by passing a test that requires only speaking, no reading and writing. Collier (1991) states that, "school personnel have frequently oversimplified the language acquisition process, assuming that a child who carries on a conversation, sounding like a native speaker, is completely proficient in the second language" (p. 512). Once students are reclassified as fully proficient, intensive second

language instruction is no longer available.

At the other extreme, in some districts language minority students may be kept in sheltered bilingual or ESL classes, in a school within a school situation, never taking regular mainstream college preparation classes and never fully developing the academic language proficiency necessary for success in secondary or postsecondary settings.

For native English speaking students, the whole language curriculum and little emphasis on vocabulary, expository reading, or reading instruction have also been the case. Concurrent with this teaching trend has been an increase in the number of students enrolled in remedial programs

Political Issues

Although postsecondary educational opportunities for minority students have increased during past decades, minority students are still significantly less likely to graduate (43%) than their majority counterparts (60%). A lack of adequate academic language skills preparation has been identified as a primary cause of the revolving door of minority student admissions in postsecondary education.

Related to this lack of academic language preparation is the current decline (most pronounced among African American and Hispanic students) in the proportion of high school students taking college eligibility courses. The 22-campus California State University system is geared to serve the top one-third of the state's high school graduates, but increasingly these students require remedial classes. During the last fifteen years, despite efforts to toughen admissions requirements, remedial enrollment in this system has risen by more than 50%. At some campuses, nearly half of the freshmen must enroll in remedial classes. As resources dwindle and tuition costs continue to rise, public and political opposition to funding remedial classes and affirmative action programs in the state institutions has increased.

Overall in California the percentage of high school graduates attending the University of California or the California State University systems as first-time freshmen declined by nearly 21 percent between 1987 and 1993, even before cuts in affirmative action and remedial classes were implemented. High school retention strategies and strategies to improve the achievement of at-risk, minority, and language minority students take on increased urgency and importance under these circumstances.

D. Project Descriptions

Details of results of the first two years were included in the renewal reports submitted each year. The following outline is an overview of the activities. All activities were necessary steps in the process to develop a valid and reliable assessment and a valid curriculum.

First Year: Summary of activities

Nomination of professors from ten disciplines, representing gender, racial, and ethnic diversity of student population.
Videotaping of their prepared, thirty-minute lectures.
Selection of lecture for pretest and posttest.
Development of first field test activities
Administration of first field test to wide range of academic language proficiency levels and language backgrounds at six sites (high schools and ESL program)

Second Year: Summary of activities

Analysis of first field test data: the nature of the language errors students make on language tasks
Refinement of test: deletion, addition, and revision of tasks
Analysis of lectures: structure, cues, collocations, vocabulary, syntax
Analysis of college textbooks: structure, text organization, vocabulary
Curriculum development: field testing of exercises, tasks
Second field test (six sites)

Third Year + Six-month Extension

Analysis of second field test results
Development of final pretest form
Development of parallel posttest
Development of eight lessons
Implementation at eight sites
Scoring and analyses of posttest results

Future Project Activity

Implementation: Fresno Unified School District Summer School, Madera High School, CSU Fresno EOP Classes
Continuing dissemination efforts
Completion of analyses of test and curriculum results
Conference presentations and publication of papers
Final publishable version of curriculum
Test manual and scoring guide
Continuation of documentation of effectiveness and additions/revisions to the curriculum based on effectiveness evidence and student interest

Assessment Description: Pretest and Posttest Format

Decisions regarding the assessment format were based on the results of the two field tests. The field test samples included the widest possible range of student language background and student preparation in academic language. The samples thus provided information about the differences between well-prepared and underprepared students in completing the academic language tasks and provided normative information for score scale development. Based on the field test results, the format described in detail below is used for the pretest and posttest tasks. The description of each test task includes some information on the decision process involved in selecting the task to be part of the assessment and information about scoring procedures. Copies of both tests are included in Appendix E and F. Detailed scoring information will be available as part of the test manual, which is being prepared. Descriptions of levels for each writing task (lecture notes, lecture short answer, reading notes, reading short answer) and norm group information are included in Appendix D.

The selection of one of the videotaped lectures for use as the basis for the pretest and posttest had the following rationale. First, in order for the notes and reading to be a valid and authentic test of student ability, a topic that students were unlikely to have studied before in high school was selected from the ten videotaped lectures (theories of learning, educational psychology professor Dr. David Tanner). The effects of prior knowledge of the topic are thus controlled. Second, in order for there not to be a ceiling effect on the test (a test has a ceiling effect if it is too easy for many of the test takers), a high enough difficulty level was necessary. The ten videotaped lectures were evaluated for the proportion of academic vocabulary used, the speed of delivery, and sentence complexity. The Tanner lecture is in the top third of the lectures for these indicators. Thus it is neither the most difficult nor one of the easiest lectures. Tanner was originally nominated and selected to be part of the project because he is known to be an excellent lecturer. His lecture is well organized, has good use of cues to indicate important topics to students, and has good repetition and restatement of key points. For these reasons, his lecture forms the basis of the pretest and the posttest.

1. **Lecture Notes**: Students watch a lecture excerpt (11-12 minutes) and take notes. The lecture has an introduction which provides students with an overview of the topic (advance organizer), an introduction to key vocabulary, and instructions for notetaking. Notes are scored holistically on a scale of 1-10 for the presence of the most important information from the lecture and to a lesser extent, on evidence of notetaking skills (use of abbreviations, indications of relationships among lecture information). Model answers (anchor responses) have been collected as examples of notes at each of the ten score levels (see Appendix D) and a score description (scoring rubric) has been developed to describe the characteristics of student responses at each level (Appendix D). These materials are used to train teachers to score student responses and thus to ensure test reliability.

2. Lecture Short Answer Question: The format of this question type is based on the use of such questions in college classes for testing purposes. Although multiple choice exams are used widely in college, the difficulty in writing such test items, keeping them secure, and their susceptibility to being answered through guessing and prior knowledge led to the decision after the first field test not to use multiple choice items as a comprehension indicator. The multiple true-false format worked somewhat better than multiple choice items in the first and second field tests, but despite the advantage of this item type over multiple choice (less reading, easier to produce), the decision to use a short answer format was made for the final test form. The short answer does indicate student comprehension of the lecture and requires synthesis of lecture information from notes into the students own words, simulating a critical college skill not only for exams but for other types of writing in college (term papers, reports, etc.). The goal in question development was to design a prompt that required use of student notes, focused on a main topic in the lecture (not trivial detail), and that could probably not be answered based on student prior knowledge. See Appendix D for scoring description.

3. Dictation of Lecture Sentences: Dictation of sentences from the lecture used in the two field tests proved to be a good indicator academic language proficiency for students. The original field test dictation was scored in great detail for the presence of all words, their spelling, and for the presence of morpheme endings on words. Analyses of the results indicated that lower proficiency students were less likely to produce academic vocabulary in the dictations and were less likely to produce morpheme endings on any words (-ed, -ing, -s, -'s, -ment, -ish, etc.). Academic vocabulary in the dictation is rated on a 1-5 scale based on correctness (5=correct, 4=minor misspelling, 3=multiple misspellings, 2=very garbled, word unrecognizable or a different word used, 1=just a few letters, no real word representation, 0=missing). These scores correlate highly with other indicators of academic language proficiency and with the student level in the norm group continuum used for the field testing. The number of minor misspellings, however, showed no correlation with any other indicators of academic language proficiency; minor misspellings, in other words, cut across all levels of proficiency. The presence of word endings also correlates highly with other indicators of academic language proficiency. Knowledge of the form and function of word endings is an indicator of a higher level of knowledge about words and how they function in sentences. For these reasons, the lecture sentence dictation task is scored in the pretest and posttest for correctness of academic vocabulary (on the 1-5 scale) and for presence of the word endings. Both scores are reported on the language profile (see Appendix B).

4. Self assessment of academic vocabulary - reading. Parallel forms of the academic vocabulary self assessment developed for the pretest and posttest were based on detailed analyses of the categories of academic vocabulary represented most frequently in lectures and in texts analyzed as part of this project. It was hypothesized that less frequently used academic vocabulary words would tend to be less familiar to students and field test data showed this to be the case. Thus the ceiling effect for most

students was avoided by developing a hierarchy of vocabulary from high to low frequency words.

Field test results indicated that self-assessment is an efficient, valid, and reliable method for assessing student vocabulary knowledge. Students rate their level of knowledge for each of the 25 words they read on a 1 to 5 scale (1 = I don't recognize this word; 2 = I've seen this word before but I don't know what it means; 3 = I think I know what this word means but I'm not 100% sure; 4 = I know what this word means and I can probably use it correctly in a sentence; 5 = I know what this word means and I have used it recently in speaking or writing; see Appendix E and F). Student scores are the total level they indicated on the 1-5 scale for their level of knowledge for each word (25 words, maximum score 125).

5. Self assessment of academic vocabulary - dictation. Because there are differences in student ability to read and listen to academic content (depending on their background and prior educational experiences), two forms of the vocabulary self-assessment were developed. In the first form (described above), students read the list of 25 academic vocabulary words and rate their knowledge level. In the second task, a parallel set of words are dictated to students. After they write down all the words, they rate their knowledge level of the words on the same 1 to 5 point scale of knowledge described above. In general, students were more confident about the words they read than about words they heard in the dictation, perhaps indicating that exposure in high school to academic language occurs mainly through reading, not through oral use. Practice with lectures then becomes an important method for students to recognize, learn, and use the vocabulary they need. The dictated words in this task are also scored on the same 1-5 scale of correctness described in the dictation section above and are reported on the student language profile (Appendix B).

6. Reading - Sentence Completion: This task was designed to evaluate student ability to recognize the correct morpheme endings on common words. Simplified reading passages related to the pretest and posttest lecture topics were written using very little difficult vocabulary in order to ensure that students could comprehend the text. Based on the common morpheme ending errors found in the field test data, selected words in the passages are presented to students in a modified cloze exercise format which requires them to select the form of the word that correctly fits in the sentence from the four choices presented. The score is the total correct on the exercise. See Appendix E and F for copies of this task. Underprepared students typically score lower on this exercise, reflecting their lack of knowledge about the meanings of morpheme endings and of the function of words in sentences (syntax and structure).

7. Reading Importance. Each professor who was videotaped also provided material (usually a chapter) from a college textbook that he or she uses in an undergraduate class. For the pretest and posttest, reading passages were chosen that were related to the lecture topic, but that did not repeat any of the lecture topic information. This selection was done to avoid confounding student reading comprehension and oral

comprehension of the lecture. In the field testing, prepared and underprepared students differed in their ability to select and underline important information from the reading passages. Project staff and a sample of well-prepared college students rated all propositions in the reading on a scale of 1 to 4 for level of importance and from these results a scoring method was developed. On each passage, the 12 most important propositions were determined and student scores are based on their underlining of these 12 most important propositions. For the occasional student who underlines virtually everything in the reading passage, one or two points are deducted to reflect the extent of this lack of selectivity. This task simulates an important college text reading skill.

8. Reading Notes: Part of the reading selection is bolded and enclosed in a box. After the underlining task, students take notes from this passage excerpt (approximately one-third of the text). This sample of note-taking simulates another important college reading skill. Notes are scored for the presence of important information, note-taking skills, and lack of verbatim copying from the text. On the field tests, underprepared students tended to copy verbatim from reading notes, tended not to interrelate information in the passage, did not summarize and restate information in their own words, and did not remove redundancies found in the reading. (Scoring rubrics are in Appendix D).

9. Reading Short Answer: After students take notes from the reading excerpt, the reading passage is collected and students use their reading notes to compose an answer to a very general question on the reading excerpt. Their paragraph answer is scored for presence of important information, student restatement (as opposed to verbatim repetition), writing organization and correctness, and addressing the question. (Scoring rubrics are in Appendix D).

Score Profile

Based the normative scaling done on the field test results, the score profile for the pretest and posttest was developed to report student and group mean scores. Each student receives an individual score report. The profile has the advantage of showing students and teachers the individual's relative strengths and weaknesses on the test tasks and the relative progress made in each area on the posttest. There is no combined score, passing score, or overall score because such combining results in a loss of information about student preparation. An SAT verbal score of 400, for example, provides no information about student strengths and weaknesses. Two students with a score of 400 may have achieved that score for very different reasons and may have had very different responses to the set of test questions. This assessment was not designed to be used as an admissions test to limit student opportunities. Avoidance of a 'bottom line' combined scoring method should preclude its use for such purposes.

Curriculum Decisions

A comparison of the responses to the academic language tasks by well-prepared and underprepared students defined the curriculum. By far the most important barrier to comprehension of lectures and text for underprepared students is the lack of academic vocabulary knowledge. This category of academic vocabulary includes words and phrases (collocations) commonly used in lecture and text, but not commonly used in everyday speech. Academic vocabulary is subtechnical; it includes words and phrases used in all disciplines and is not the technical vocabulary of the discipline. These words and phrases faculty use to describe and teach the technical information of the discipline are a barrier to comprehension for the underprepared student.

The curriculum emphasizes vocabulary development because this was identified as the most important barrier to comprehension. Only words and phrases used in context (from the lecture and reading) are taught in each lesson. Thus the vocabulary selection is authentic, in context, and not just a random list of uncommon words for students to memorize. In each lesson, students learn the prefixes, suffixes, and roots that can indicate word meaning. In addition, they learn all forms of the word that exist (noun, verb, adjective, adverb) because there is evidence that the less common forms (usually the noun form) are often not recognizable to students who may know the adjective or verb form. Lessons on the use and meaning of plural, past tense, gerund markers (-s, -ed, -ing, etc.) are also included to familiarize students with the meanings that these endings signal regarding how words are used in sentences and what the words mean.

These word attack skills are part of each vocabulary lesson. In addition, each academic vocabulary item is associated with one of eleven categories developed during the project, each with its own icon or symbol of meaning. By associating the vocabulary with an icon, students can better remember the word meaning. The eleven categories are words and phrases that have to do with: thinking; importance; person characteristics; information; research or academic context; cause, effect, and change; words that are used to hedge or qualify; time; history, government, and society; evaluation and description; and words that connect ideas in some way. Selected examples from one of the lessons of the words in these categories and the icons are included in Appendix C. Each lesson has its own dictionary with the four word parts and a simple explanation of the word meaning included for each entry. It is often the case that underprepared students have trouble reading definitions of words from a commercial dictionary because the definitions themselves use academic vocabulary and thus become inaccessible to the underprepared student. Each lesson dictionary entry also includes a sentence from the lecture or reading that shows how the word was used. At the request of one teacher, students are also provided with blank dictionary forms in each of the eleven categories so that they can keep their own personal dictionary of new academic vocabulary they learned in other class activities

Two symbols are used throughout the lessons to draw students' attention to words that have usable prefixes, suffixes, or roots that can indicate meaning (✂ = you can cut this word apart) or to indicate a category of words and phrases that are tricky (✔ = check this word out!). The tricky words are those that appear to be common

everyday words that students know but that actually have a specialized use in the academic context. Field test evidence indicates that these words can mislead students during the lecture or reading. Words such as discipline, model, field, and approach, when used in an academic context, do not mean what students assume they mean. When a lecturer speaks 167 words per minute(the average in this sample), a student who is temporarily mislead by the meaning of the word discipline in a lecture will not understand the subsequent lecture material until the meaning is clarified. A lapse of even a minute during a lecture can be difficult for students to recover form.

Analyses from the field test dictation exercises indicated clearly the effect unfamiliar words had on students. After struggling with trying to write an unfamiliar academic word, underprepared students made errors on familiar common words that followed immediately after the difficult word. They were so distracted by the academic word, they failed to hear clearly what followed. In a lecture, it is easy to see why students fail to write down important information in their notes. They are either confused by the meaning because of the distraction of unknown words, are unable to distinguish important and unimportant information, or are mislead by the use of a trick word. In reading, research indicates that underprepared students simply skip difficult words and continue reading without ever gaining full meaning. Compared to good readers, research shows that underprepared readers have and use fewer strategies for getting meaning out of difficult text. Note in the section on student comments from Madera High School (see next section) how many students reported that after intensive vocabulary study they no longer just skipped difficult words, but tried their new word attack skills to decipher the vocabulary.

The analyses of student notes from the field tests indicated many differences between the notes of prepared and underprepared students. These difference were used to define the curriculum related to note-taking. The activities include use of abbreviations and symbols, relational arrows, practice in note-taking, group activities, and model notes. Many study skills books on the market have idealized versions of student note taking methods, such as using Roman numerals to organize levels of information. Teachers and textbook writers may imagine this is how good notes are taken, but in fact they are not. By using composites of well-prepared students' notes as models, the underprepared students can see how other students approached the same task lecture note-taking task and model their note-taking after these examples. The curriculum also includes lessons on lecture structure and cues. Professors use indicators of their organization (macro- and micromarkers) and students can be taught to recognize these markers.

A third part of the curriculum focuses on reading skills and strategies. Lessons include an explanation of why good reading notes are important in college (also applies to high school), strategies students can use before, during, and after reading to be a better reader, abbreviations and short-cuts to note-taking, identifying the important information, finding the redundant information, and finding the unimportant information.

A fourth section in the curriculum focuses on sentence complexity. College texts were analyzed for the most common sentence complexities and students practice "pulling apart" these long, complex structures. In both field tests, tasks were designed to try to identify which aspects of the complex sentences interfered with student

comprehension. However, this proved a difficult construct to measure. The results did indicate that although passive constructions are common in academic speech and writing, the passive construction itself did not often interfere with comprehension. Nevertheless, the various kinds of passive constructions are practiced in one lesson because they are so common. Other common complexities are introduced and practiced in each lesson using sentences from the lecture or reading of that lesson.

The curriculum does not put heavy emphasis on this area of grammatical complexity because it was found that academic vocabulary is by far a larger problem for student comprehension and because it is difficult to approach teaching complex constructions without using grammatical terms. Students of this generation have little awareness of grammar or grammatical terms, and many teachers are also unfamiliar with grammar rules. For this reason, the issue of grammatical complexity is approached by demonstrating the kinds of complexities that are frequent in academic writing and speech by presenting students with sentences from the lesson context and then by showing students how they can approach understanding the various parts of the sentence.

Finally, each lesson has a section on academic culture. Many of the students who will use the assessment and curriculum are the first in their family to have college aspirations and opportunities. On the videotaped lectures, professors were asked to introduce themselves and explain how they prepared for their position as professor. Each lesson deals with some aspect of postsecondary education related to these introductions such as the organizational structure of the university and the different administrative and professorial ranks, the different kinds of postsecondary institutions, the kinds of degrees available in postsecondary education, etc.

The first lesson is constructed around the lecture and reading on the pretest. A test is not useful unless it serves to inform and teach students. Thus students work with their own pretest results during the first lesson to compare their answers to model answers and to see how they could have responded differently to test tasks. Students are encouraged to work in groups and discuss or compare their responses, come up with group answers, and generally 'own' the curriculum by becoming involved in discussions of the words and tasks. Working in isolation, only passively listening to the teacher is not motivating or involving for the underprepared student. Almost all activities in the curriculum can be done as group activities.

E. Evaluation/Project Results

Formative Evaluation Approach

The project evaluation approach was formative, with test and curriculum development based on information found during task analyses and field testing to identify the nature of student errors on the academic language tasks. The sampling was adequate to support test validity: over 700 students were involved in the two large-scale and several smaller scale field tests of test and curriculum tasks. Students in these samples represented wide ranges of age and language background to support the norming for score interpretation (seniors in Advanced Placement English down to average English classes for freshmen, ESL-only high school students, and three levels

of international ESL program students). As results were analyzed, decisions regarding the test and curriculum format were made. The field test data will support test validity and reliability and will be included in the test manual when the test is published.

The curriculum continues to be revised based on student and teacher reactions to the content and exercises. For three classes at Madera High School, the teacher kept a log of observations about student reactions and her reactions to the exercises and videos. In addition, students wrote reactions to their English class, including the academic language curriculum. Excerpts from these student papers are reported later in this section. Formative decisions were also made for the test format and administration procedures by the project director, who administered and helped score all of the pretests and posttests. The project director also observed lessons being taught and taught some lessons herself (Upward Bound Program, Merced Community College, and CSU Fresno Speech 10T class) in order to evaluate student interest in the exercises and student ability to complete the lessons. The curriculum will go through another editing prior to implementation in two high school summer school classes which begin June 19, 1996.

Task Analysis

The nature of academic language was analyzed to support the development of the test tasks and to provide the information necessary for developing the curriculum and exercises. The results of these analyses are summarized below.

Lectures: Professors who gave the videotaped 30-minute lectures as part of this project speak on average 167 words per minute. In order to determine whether this speed is typical, videotaped samples were recorded in regular classroom lectures for four of the ten participating professors. In a normal college class setting their delivery speed is similar to speed on the project videotaped lectures.

Analysis of Lecture Cues: The literature on lecture structure was analyzed and a method was developed for this project for identifying and categorizing the cues professors give in their lectures that indicate the level of importance of information, when a topic shift is occurring, and other organizing indicators. Students are taught to recognize these cues to help organize their decision process for what to write down in their lecture notes.

Lecture and Text Vocabulary: Text from eleven undergraduate textbooks representing eleven different disciplines was scanned and lectures were transcribed. These text files were analyzed using a computer content analysis program (TEXTPACK, Mannheim, ZUMA). The amount of academic vocabulary (nontechnical, but not typically used in conversation) in lectures varied from 7 to 12% across the lectures and texts used in the project (the pretest and posttest lecture has 10.1%). While these percentages may seem small, it should be noted that up to 80% of the vocabulary is very high frequency, very common words (a, the, and, etc.).

Implementation and Evidence of Effectiveness

Third Year: Implementation Sites Fall 1995 - Spring 1996

Location	Courses
Merced Community College Merced, California	Education 87 Study Skills Enrollment: 28
Kings River Community College Reedley, California	College Reading and Study Skills Enrollment: 14
Madera High School Madera, California	English 3 Period 2, English 3 Period 5, English 3 Period 6 Total Enrollment: 100
California State University Fresno, CA	University 20T College Planning Skills Enrollment: 14 (Pretest only)
California State University Fresno, CA	LEE AR Reading Skills Volunteer Participation: 6
California State University Fresno, CA	Speech 10T Freshman College Experience Educational Opportunity Program Enrollment: 36
Fresno City College Fresno, CA	Upward Bound Program Enrollment: 56 (Posttest May 11, 1996)
Kings River Community College Reedley, CA	Upward Bound Program Enrollment: 37 (Posttest May 11, 1996)
Scheduled:	
Fresno Unified School District Edison High School	Summer School Classes (2) Enrollment: 70

The level of implementation varied by site, depending on the number of hours per week the classes met and the amount of time teachers chose to spend on the curriculum relative to other scheduled activities. In the CSU Fresno University 20T course, only the pretest was done. The CSU Fresno LEE AR course had no posttesting because the time period for course delivery was too short (less than one semester) for the participants who came voluntarily outside of regular class hours. The

Kings River Community College site also did not include posttesting. At Merced Community College, irregular student attendance and other factors resulted in only partial implementation and partial posttesting. Pre- and posttesting was completed at the CSU Fresno Speech 10T course and in the three classes offered at Madera High School. Posttesting is scheduled after this report is due (May 11, 1996) at the two Upward Bound programs (Fresno City College and Kings River Community College).

Academic language score profiles reflecting class averages for the Madera High School, CSU Fresno Speech 10T, CSU U20T, and Fresno City College Upward Bound Program are included in Appendix B and will be discussed in detail as evidence of curriculum effectiveness and as further evidence of test validity.

Madera High School (MHS). MHS was the site that had the longest and most intense implementation of the project curriculum and assessments. For this reason, the majority of the effectiveness data in this report is related to the MHS implementation. Three English classes for juniors (and some seniors) were given the pretest in September, 1995. The first three lessons of the academic language curriculum were fully implemented. After the third lesson (based on the lecture of business law professor Dr. Ida Jones) and before the posttest, Dr. Jones visited two of the classes. As part of the visit, students displayed composite notes from her lecture that had been developed in groups (see photographs). Dr. Jones and the Project Director served as judges for awarding prizes for the displayed lecture notes. Although 103 students were tested in September in these classes, by the time the posttest was administered, only 84 of the original students were still enrolled in the three classes. MHS has a high dropout rate.

Madera High School (MHS) is a large (3300 students), predominantly Hispanic, rural comprehensive high school with a 50% nongraduation rate. Madera, a city of 38,000, located 21 miles northwest of Fresno in Central California's San Joaquin Valley, has a predominantly rural Hispanic minority population with a 20% unemployment rate and an agriculturally-based economy. The city has no postsecondary institution, the closest being California State University, Fresno. Approximately 60% of the MHS students are Hispanic, and of those, 25% are currently categorized as LEP (Limited English Proficient).

MHS has made many reforms, including the division of the school into six "Career Schools" focusing on student interest and career choices. The junior English classes selected for assessment and curriculum implementation are in the Human Service Career School, which includes careers in education, police, social work, and prison-related service jobs. Because Madera has no postsecondary educational institution, students have little opportunity for exposure to the college culture or to professors. The visits by the Project Director and by Dr. Ida Jones provided rare contact between CSU Fresno, the nearest postsecondary institution, and the school.

Results of the pretest and posttest for MHS are shown in Figures 1-3 in Appendix B. Students made significant progress particularly in the areas of lecture note-taking, reading note-taking, and answering a reading question using their reading notes. Students also showed significant increases in their self-ratings of vocabulary knowledge levels, and showed small increases in other test areas. The changes

observed support the effectiveness of the curriculum and validity of the test. With only three of the eight lessons delivered, on a part-time basis over the five-month period along with the regular curriculum, measurable improvement was observed.

Academic language development is a long term process. One of the aims of the curriculum and assessment is to give students skills for learning new vocabulary and knowledge about their areas of strength and any weaknesses they have. In particular, the vocabulary skills (prefixes, suffixes, word roots) will continue to help them comprehend new text and new vocabulary as they progress through their school and academic careers.

The teacher observation notes collected from the Madera High School site include an interesting description of two students arguing about the differences in the academic meanings of the words field and discipline. Each got a dictionary and read the definitions to the class to support his own argument. This was noteworthy and pleasing from the teacher's point of view because these students (two males) were seldom engaged in class discussions and had never before voluntarily picked up a dictionary.

As part of the data collected for the MHS classes, the Project acquired copies of the fall semester final exam for the course. Students were assigned to write a reflective essay on what they had learned in their English class and one other class that semester. Excerpts of students' reflections on vocabulary study and the academic language curriculum provide insights into their perceptions of the project effectiveness. The excerpts are quoted verbatim below (including the one that appears on the front cover of this report).

This year the classes are a lot different from the past years. This year I've learned a lot of things that will help me in the future. In English our teacher gave us a lot of vocabulary words that are used in college. I took my PSAT this semester and the vocabulary really helped. We also learned how to take notes from lectures and reading assignments. The reading notes were easy but the lecture notes, boy were they hard! A lot of the time I wrote down information I didn't need and then I would skip the real important stuff. Later, we got tips on how to properly take notes, chose important information, abbreviate, and answer short questions relating to the subject. That will definitely help me in college.

I learned to power in my writing by elevating my language. I never have acknowledge the importance of vocabulary, but now I do. I now understand why prefixes and suffixes are strongly important when it comes to breaking down huge, unusual terms. Before I would skip over these unusual words, but now I stop and try to tackle the meaning of these mysterious words before me. Finally I have realized that it is my responsibility to file these away in my memory for future use. The greatest gain of all, though, came when I spent considerable time studying academic language. Studying academic language taught me what I need for the future to keep me from getting frustrated and dropping out of college. What I mean by this involves four specific skills. The first is about note taking. I learned how to abbreviate using my own system as well as using the standard abbreviations. Secondly my ears can now identify the lecture

signals from the professor. Thirdly, through the task of having to underline important information while reading, I understand better the important information from the unimportant information. Finally, I was mentally exercised by having to use my lecture notes to answer possible test questions. I remember will the times I left class with a headache--not because it was boring but because it was challenging.

These exercises helped my writing extensively because it seems that writing and vocabulary are very critical parts in English. In my last and final delineate about English I can't forget those nagging prefixes which are very helpful.

In English III, I met many challenges. Vocabulary seemed to be the hardest for me, and literature the easiest. I suppose I had a hard time with the vocabulary because I didn't spend enough time practicing it. I had the most trouble learning and understanding the prefixes and suffixes. Academic language falls into the next category. It wasn't quite hard to understand but I did have some problems keeping up with the speaker while taking notes. Learning how to take lecture notes will come in handy while in college, which is why I'm glad I had a feel of it now.

This English III class has made me feel better about myself, my grades and my responsibilities towards my school work. We had vocab tests once a week basically on stuff I soon came to know and understand. Prefixes, suffixes and roots are very import when defining words. Because of these, I've been able to divide words up and understand their meaning without having to use a dictionary. These learning skills have become very useful. When your learning things in an English class it makes you become very open minded to other classes and their teachings.

Vocabulary was hard for me to comprehend because I was discovering new words that were foreign to me. The advanced words were complicated at first, but with the help of learning prefixes and suffixes it grew easier for me to absorb. Much of these vocabulary words I can now use in my every day conversations. Academic language came easier because it was not as difficult. In academic language, or A.L., we studied the note taking process and abbreviations. Note taking was difficult in the beginning, but after more studying and concentration, it became as easy and natural as breathing for me. Abbreviations was not as hard but it did take time to get used to all of the symbols used to abbreviate words, such as the use of arrows and dots.

I learned a lot from the Academic Languages. The lecture note taking has help me out a lot. Now I find myself taking down my notes a hole lot faster then I ever done. The reason behind this is because of the abbreviations I learned. What also helped me out of that Academic Language packet was note taking from silent reading. Is when I'm studying out of my text book for a test I see the information a lot faster because I know now what to look for. The Academic Language has really dramatically improved my skills in note taking.

By learning the prefixes and suffixes it now helps me understand the meaning of more words. Before I'd see a long word I didn't recognize I would simply skip the word, but now I actually look up the word and find out the meaning. I think in college it will help me out a lot. The part of English III that helped me the most was Academic Language. The Academic Language helped me learn how to take better lecture notes. The lectures weren't all that interesting but it helped me learn quicker ways of taking notes, using symbols and arrows and things like that. It also helped me pick out important things from reading. It was helpful because by picking out important information it helped me understand what the writer was trying to say. Academic Language also helped me in my Biology class, because I was asked to take notes to study from.

In academic language, I learned many new things especially in the area of note-taking. In the area of note taking I really sharped my skills. We had to watch some college professors and take notes. So when I got to college I won't be so narrow minded and have at least an idea on how lectures are going to be later on on my life.

To start with in my English class we have spend some of our time doing academic language. In academic language we have been doing lecture note taking, at the beginning I was really lost. I didn't really know what to take notes of, what was really important and what wasn't. Throughout the time we have spend taking notes I have learn how important is to take notes. I'm not really good at it but I tried my best and now I'm getting better at it. My teacher said "We are going to spend part of our time in vocabulary development with prefixes and suffixes." Through my head their was many thoughts like what are prefixes and suffixes? This was my first time dealing with them. After many practices I remember some. I got really happy because I was learning them.

Academic language was the most interesting thing we did. This was really enjoying to learn about to prepare me for what is ahead in the future. The plans that I've made to receive a degree in one area. Learning the note taking skill is very important and is probable one of the best things that I've ever learned in school and will help me all my life.

Something that was much easier than this [literature] was the Academic Language. The part of Academic Language was somewhat challenging and somewhat simple. The lecture notetaking was uneasy, because both Dr. Tanner and Dr. Sanchez spoke fast and were difficult to understand I couldn't figure out what they were saying because I had never discussed what they were lecturing about. I did know how to answer short questions from the lecture notes.

We also covered acidimic Language. In acidimic Language we covered note taking, word attack skills, and note taking from silent reading. I have never been able to take notes that can really help me out, but now I can. When I read I used to skip over the big words and not care what they ment, but now I figure out what they mean with my word attack skills. I can not only take better notes for lectures, but I can take better

notes from silent reading now.

I now find myself tearing words apart to find their meanings, especially when I'm not sure of their origin. For me this is an enormous leap! Many new words and definition now add flavor to my verbal and written communications. I'm even able to season all this with a dash of Academic Language. I've spent many weeks picking my brain trying to understand the mysterious Academic Language. I felt like Alice when she was talking to the Caterpillar, he wanted to know who she was and she replied, "I-I hardly know, sir, just at present at least I know who I was when I got up this morning, but I think I must have been changed several times since then." And boy have I been changed by knowledge. I thought if I heard that Dr.'s name [Project Director] again, I'd scream! Hauntingly, I gained a profound likeness for her. Being a junior in high school, I am very intimidated by the thought of college. I feel stronger knowing I am equipped with note-taking skills, listening skills, vocabulary, and most importantly I am equipped with more knowledge. Now I can raise my head high and say that I honestly know what a Bildungsroman is. Can you? As I said before, I have taken a huge leap in understanding this Academic Language. (Also on front cover of report).

Academic Language as a Second Language

One of the most important conclusions reached during the three years of development and analyses of student work is that **academic language is a second language for all students**, regardless of background. The characteristics of students with low academic language proficiency cut across all language and ethnic backgrounds represented in the field test. The vocabulary, syntax, and skills associated with the ability to handle the language tasks of college must be learned by all students; nobody learns academic language when they learn to speak. The extent to which the language spoken by students is similar to English academic language, the more seamless the transition students must make for comprehension and production of academic discourse.

Students in Madera High School are categorized by the school district as native speakers of English, or English dominant, Fully English Proficient (FEP), Limited English Proficient (FEP), or ESL only. LEP students are enrolled in regular classes, and at some point in their educational careers may be reclassified as FEP. ESL only students may be reclassified as LEP and later as FEP. Figures 2 and 3 (Appendix B) show the mean scores on the pretest and posttest broken down by language category. On both the pretest and posttest, the profiles of the English, FEP, and LEP students are almost indistinguishable. On both tests, in fact, LEP students had slightly higher scores than the English or FEP category students on a few of the test tasks. The remarkable similarity in scores and patterns of scores for the three groups supports the conclusion that academic language is a second or learned language for students of all backgrounds.

The LEP students who are recent arrivals and have had extensive schooling in their first language may have first language academic language proficiency, making learning of academic English a somewhat easier task. Students who have only oral

proficiency in their first or home language may find learning academic vocabulary equally difficult in both languages. One student quoted above (from Madera High School) also wrote about his Spanish II class and the difficulty he had learning new Spanish vocabulary. The student ultimately dropped the second-year Spanish class at the semester break. He is a native speaker of Spanish and is currently categorized as FEP, which means that at one time in his educational career his dominant language was Spanish. The vocabulary teaching approach used in the academic language project is apparently easier and more motivating for him than vocabulary study in his native language.

Figure 4 represents pretest and posttest scores for the CSU Fresno Speech 10T Freshman College Experience class. These students are already enrolled in college classes and are taking the 10T class as part of the Educational Opportunity Program. These students completed only two lessons from the curriculum during the fall semester, but also showed progress on most of the academic language tasks.

Figure 5 shows the mean scores for the Fresno City College Upward Bound Program students. Scores are generally lower than in the other two groups for the most part because the group includes freshmen through seniors in high school. Evidence from the two years of pretests indicates that average freshmen know even less vocabulary and are able to comprehend less reading and lecture materials than their junior or senior counterparts.

The final graph, Figure 6, shows the mean pretest results for the CSU Fresno U20T College Planning skills class. Currently enrolled college students are advised into this class if they have problems with classes or have low grade point averages. The class is predominantly freshmen and sophomores, but it also includes juniors and one senior. The senior, a psychology major, had scores above the "Prepared" level on all test tasks except the reading activities, and her apparent reading problems are typical of the students in the class. On average, students in this class showed reading task scores below the level necessary for successful college work.

F. Summary and Conclusions

As a result of doing this project, my ideas about the nature of academic language have changed. Linguists have made the theoretical distinction between cognitive academic language proficiency (CALP) and basic interpersonal communications skills (BICS, or spoken language), but until now this has remained a theoretical construct. This project has resulted in a thorough description of academic language, a method to assess it, and a clear picture of the language problems underprepared students have when they attempt academic language tasks such as note-taking and reading. More importantly, it is clear from the project results that academic language is a second language for all students, not just students from minority or language minority backgrounds. All students have to learn this language and for some the distance between the familiar spoken language and academic language is a long trip.

An effective well-planned curriculum will only work with a teacher who understands the language needs of students (good training with the materials) and who

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is enthusiastic and effective. I have observed so much variety in delivery of the program, I believe that the quality and commitment of the teacher is the key to effective change for students. The disinterested teacher who does not know how to motivate and engage young students in this age group may not see great changes in student language skills even with this well-designed curriculum. Students have to be engaged and drawn into the class activities, and be convinced of the long-term benefits of their work.

As is necessary good practice with any use of assessment, practitioners who wish to use this test should develop local norms to ensure that score interpretations are valid for their student population.

The need for intervention for students is clearly demonstrated by the results. Some students will develop excellent academic language skills due to exposure in high school, but most will not become highly proficient in academic language without direct instruction, especially in vocabulary. As funding for remedial programs and affirmative action decreases, the need for good postsecondary preparation in the high schools is more urgent than it has been at any time in the past. Academic language skills are essential to success in postsecondary education. Although there are efforts to reform college teaching, the lecture has been the main method of teaching for hundreds of years and will not change in the near future. If anything, as budgets are smaller and enrollments larger, large lecture delivery of courses is on the rise, not on the decline. The language of college texts will not change; students must be prepared to handle the language tasks they will face in college if they want to benefit from their postsecondary opportunities.

G. Appendices

Appendix A. Information for FIPSE

1. What forms of assistance from FIPSE were helpful to you? How can FIPSE more effectively work with projects?

My program officer (Charles Storey) was very helpful during his site visit by meeting with administrators and spending time at a field-test school site. His insights and discussion at both sites helped focus positive attention on the project and garner more support locally for the project implementation. More importantly, he arranged and encouraged networking each year between this project and other funded and proposed FIPSE projects in related fields. These contacts and collaborations have been very important in supporting the exchange of ideas, in dissemination efforts for this project, and for the other projects that can benefit from this work.

In my case, in retrospect, I could have benefited at the first Project Directors' meeting in Washington from a workshop for inexperienced federal grant administrators on information about federal budget guidelines and regulations, institutional responsibilities for administration of the funds, and regulations about carryover, end of budget year spending, etc. I personally had no idea how time-consuming taking care of the budget would be, what my rights were regarding spending funds, and what the institutional responsibilities were regarding supporting grant activities. Learning these things during the three year period and administering the project was very time-consuming. At large research institutions this may not be a problem, but at smaller institutions where financial officers are less familiar with federal grant regulations and responsibilities, the project director may end up, as was the case in this project, spending huge amounts of time on dealing with budget administration and control.

2. The lesson learned in the case of the field testing results that can be helpful in selecting projects in the area of language issues is the evidence that students with lower levels of academic language will experience language-related barriers to comprehension of lectures and textbooks in postsecondary education. Students in this category can be from any language background, including native speakers of English; the issue of underpreparation is not just a language-minority or English as a second language issue. Projects designed to prepare or support the underprepared college student should target all underprepared students from all backgrounds. Language development support should be contextualized using authentic materials such as are used in this curriculum and assessment. Remedial courses or study skills classes delivered by adjunct instructors not trained in language development do not meet the needs of the students. I have observed this problem at several of the sites where field testing or implementation occurred. In addition to reviewing study skills course content and observing course delivery, I purchased and reviewed all the books used in such courses at the community college and four-year institutional level. Some study skills books have helpful exercises, but many are filled with vague advice about getting organized, having a clean work space, and relaxing. None are based on actual

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evidence of student problems; they are based on the author's intuition of what students need.

3. FIPSE has made an important contribution to our understanding of a major barrier to student success in postsecondary education through support of this project. The task analysis and applied research approach represent a major step forward from the usual basis of programs, which is the reliance on well-meaning teacher experience and teacher intuition to describe the needs of the students. Although FIPSE does not fund basic research, I highly recommend support for projects that take the task analysis approach to problem understanding and solution prior to the design and implementation of a program for students. In the long run, such an approach will yield results that are more than the next new 'bandwagon' approach to change.

4. Although this project has not been on the schedule envisioned four years ago when I wrote the proposal, I think the ways it has evolved have lead to a more complete understanding of the nature of academic language, the nature of the problems students have comprehending this language, and the ways in which we can help prepare students for the language tasks in the postsecondary curriculum. From this perspective, I appreciated having the no-cost extension to complete the implementation.

5. It is heartening to see that the end of FIPSE funding does not mean the end of the project. The two Upward Bound Programs that are using these materials will probably continue to do so next summer and next fall (posttesting for these two sites is scheduled for May 11, 1996, too late for this final report). Fresno Unified School district, the third largest district in California, will offer two special summer school classes for juniors and seniors using the project materials.

6. Another way the project is getting visibility is through my appointment as a Research Fellow at the University of California Educational Research Center here in Fresno. Through that Center, I will be working with science teachers in the district to develop a better understanding of the nature of the language used in secondary science textbooks, and the nature of the comprehension problems students have that are directly related to the academic language used in text and lecture. This science project will apply the methods of task analysis used in my FIPSE project and the kinds of assessment procedures used in the pretest and posttest. The research will form the basis of statewide professional development workshops for the science teachers and should result in more effective approaches to teaching minority and language minority students without 'dumbing down' the curriculum.

Appendix B. Score Profiles: Averages

Figure 1 Madera High School Pretest and Posttest Results

Figure 2 Madera High School Pretest by Language Category

Figure 3 Madera High School Posttest by Language Category

Figure 4 CSU Fresno EOP Speech 10T Pretest and Posttest Results

Figure 5 FCC Upward Bound Pretest Results

Figure 6 CSU Fresno U20T College Planning Skills

Academic Language Assessment Profile

Pretest and Posttest

Pre —
Modern High School Post —
Name

Figure 1

Listening - Lecture						*Vocabulary*				*Reading*				
Lecture Notes	Lecture Short Answer Question	Dictation: Lecture Sentences				Academic Vocabulary B	Academic Vocabulary A		Reading: Sentence Completion		Reading Importance: Underlining	Reading Notes	Reading Short Answer Question	*Language Level Description:*
		Endings		Vocabulary		Self Rating	Self-Rating	Dictation						
10	10	70	90	70	90	125	125	125	32	28	12	10	10	*Well Prepared*
9	9	68	88	68	88	115	115	120	31	27	11	9	9	
8	8	66	86	66	86	105	105	110	30	26	10	8	8	*Prepared*
7	7	64	84	64	84	95	95	110	28	24	9	7	7	*Minimal*
6	6	62	82	62	82	85	85	105	26	22	8	6	6	*Under-Prepared*
5	5	60	80	60	80	75	75	100	24	20	6	5	5	
4	4	58	75	58	75	65	65	80	22	18	4	4	4	*Lacking Academic Language Skills*
3	3	50	70	50	70	55	55	60	18	14	2	3	3	
2	2	40	60	40	60	45	45	40	14	10	1	2	2	*Lacking Academic Language Base*
1	1	30	50	30	50	25	25	25	10	6	0	1	1	

Figure 1

Academic Language Assessment Profile

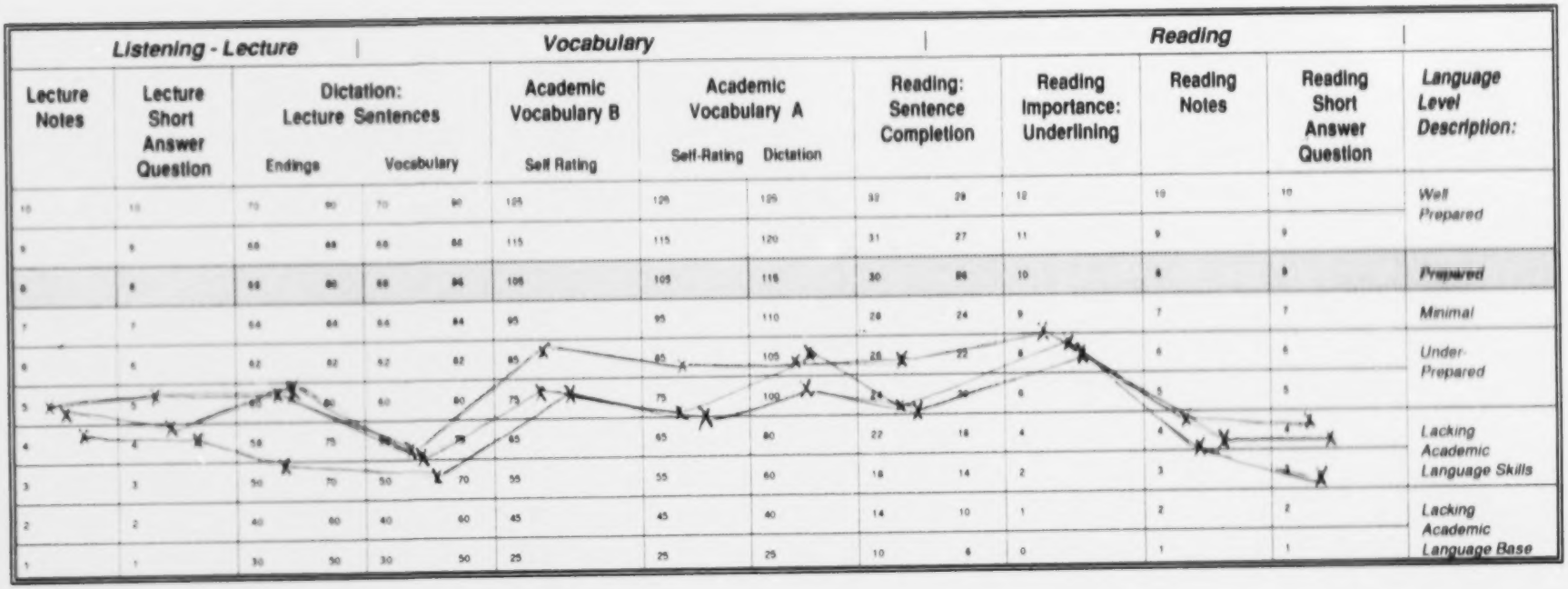
Pretest and Posttest

Madera High School Pre

English
FEP
LEP

Name

Figure 2



Listening - Lecture						*Vocabulary*					*Reading*				
Lecture Notes	Lecture Short Answer Question	Dictation: Lecture Sentences				Academic Vocabulary B	Academic Vocabulary A		Reading: Sentence Completion		Reading Importance: Underlining	Reading Notes	Reading Short Answer Question	*Language Level Description:*
		Endings		Vocabulary		Self Rating	Self-Rating	Dictation						
10	10	70	90	70	90	125	125	135	32	28	12	10	10	*Well Prepared*
9	9	68	88	68	86	115	115	120	31	27	11	9	9	
8	8	66	86	66	84	105	105	115	30	26	10	8	8	*Prepared*
7	7	64	84	64	84	95	95	110	28	24	9	7	7	*Minimal*
6	6	62	82	62	82	85	85	105	26	22	8	6	6	*Under-Prepared*
5	5	60	80	60	80	75	75	100	24	20	6	5	5	
4	4	58	75	58	78	65	65	80	22	18	4	4	4	*Lacking Academic Language Skills*
3	3	50	70	50	70	55	55	60	18	14	2	3	3	
2	2	40	60	40	60	45	45	40	14	10	1	2	2	*Lacking Academic Language Base*
1	1	30	50	30	50	25	25	25	10	6	0	1	1	

Figure 2

Academic Language Assessment Profile

Pretest and Posttest

Modern High School Post

English
FEP
LEP

Name

Figure 3

Listening - Lecture						*Vocabulary*			*Reading*				
Lecture Notes	Lecture Short Answer Question	Dictation: Lecture Sentences				Academic Vocabulary B	Academic Vocabulary A		Reading: Sentence Completion	Reading Importance: Underlining	Reading Notes	Reading Short Answer Question	*Language Level Description:*
		Endings		Vocabulary		Self Rating	Self-Rating	Dictation					
10	10	70	90	70	90	125	125	125	32	28	12	10	10	*Well Prepared*
9	9	68	88	68	88	115	115	120	31	27	11	9	9	
8	8	66	86	66	86	105	105	115	30	26	10	8	8	*Prepared*
7	7	64	84	64	84	95	95	110	28	24	9	7	7	*Minimal*
6	6	62	82	62	82	85	85	105	26	22	8	6	6	*Under-Prepared*
5	5	60	80	60	80	75	75	100	24	20	6	5	5	
4	4	58	78	58	78	65	65	90	22	18	4	4	4	*Lacking Academic Language Skills*
3	3	50	70	50	70	55	55	80	18	14	2	3	3	
2	2	40	60	40	60	45	45	40	14	10	1	2	2	*Lacking Academic Language Base*
1	1	30	50	30	50	25	25	25	10	6	0	1	1	

Figure 3

Academic Language Assessment Profile

Pretest and Posttest

Pre ═
CSUF EOP Speech 10T Post ═

Name

Figure 4

Listening - Lecture						*Vocabulary*				*Reading*				
Lecture Notes	Lecture Short Answer Question	Dictation: Lecture Sentences				Academic Vocabulary B	Academic Vocabulary A		Reading: Sentence Completion		Reading Importance: Underlining	Reading Notes	Reading Short Answer Question	*Language Level Description:*
		Endings		Vocabulary		Self Rating	Self-Rating	Dictation						
10	10	70	90	70	90	125	125	125	32	28	12	10	10	*Well Prepared*
9	9	68	88	68	88	115	115	120	31	27	11	9	9	
8	8	66	86	66	86	105	105	115	30	26	10	8	8	*Prepared*
7	7	64	84	64	84	95	95	110	28	24	9	7	7	*Minimal*
6	6	62	82	62	82	85	85	105	26	22	8	6	6	*Under-Prepared*
5	5	60	80	60	80	75	75	100	24	20	6	5	5	
4	4	58	75	58	75	65	65	80	22	18	4	4	4	*Lacking Academic Language Skills*
3	3	50	70	50	70	55	55	60	18	14	2	3	3	
2	2	40	60	40	60	45	45	40	14	10	1	2	2	*Lacking Academic Language Base*
1	1	30	50	30	50	25	25	25	10	6	0	1	1	

Figure 4

Academic Language Assessment Profile

Pretest and Posttest

FCC Upward Bound Pre

Name

Figure 5

Listening - Lecture						*Vocabulary*				*Reading*				
Lecture Notes	Lecture Short Answer Question	Dictation: Lecture Sentences				Academic Vocabulary B	Academic Vocabulary A		Reading: Sentence Completion		Reading Importance: Underlining	Reading Notes	Reading Short Answer Question	*Language Level Description:*
		Endings		Vocabulary		Self Rating	Self-Rating	Dictation						
10	10	70	90	70	90	125	125	125	32	28	12	10	10	*Well Prepared*
9	9	68	88	68	88	115	115	120	31	27	11	9	9	
8	8	66	86	66	86	105	105	115	30	26	10	8	8	*Prepared*
7	7	64	84	64	84	95	95	110	28	24	9	7	7	*Minimal*
6	6	62	82	62	82	85	85	105	26	22	8	6	6	*Under-Prepared*
5	5	60	80	60	80	75	75	100	24	20	6	5	5	
4	4	58	78	58	78	65	65	80	22	18	4	4	4	*Lacking Academic Language Skills*
3	3	50	70	50	70	55	55	60	18	14	2	3	3	
2	2	40	60	40	60	45	45	40	14	10	1	2	2	*Lacking Academic Language Base*
1	1	30	50	30	50	25	25	25	10	6	0	1	1	

Figure 5

Academic Language Assessment Profile

Pretest and Posttest

CSUF U20T College Planning Skills Pre

Name

Figure 6

Listening - Lecture						*Vocabulary*				*Reading*				
Lecture Notes	Lecture Short Answer Question	Dictation: Lecture Sentences				Academic Vocabulary B	Academic Vocabulary A		Reading: Sentence Completion		Reading Importance: Underlining	Reading Notes	Reading Short Answer Question	*Language Level Description:*
		Endings		Vocabulary		Self Rating	Self-Rating	Dictation						
10	10	70	90	70	90	125	125	125	32	28	12	10	10	*Well Prepared*
9	9	68	88	68	88	115	115	120	31	27	11	9	9	
8	8	66	86	66	86	105	105	115	30	26	10	8	8	*Prepared*
7	7	64	84	64	84	95	95	110	28	24	9	7	7	*Minimal*
6	6	62	82	62	82	85	85	105	26	22	8	6	6	*Under-Prepared*
5	5	60	80	60	80	75	75	100	24	20	6	5	6	
4	4	58	75	58	75	65	65	80	22	18	4	4	4	*Lacking Academic Language Skills*
3	3	50	70	50	70	55	55	60	18	14	2	3	3	
2	2	40	60	40	60	45	45	40	14	10	1	2	2	*Lacking Academic Language Base*
1	1	30	50	30	50	25	25	25	10	6	0	1	1	

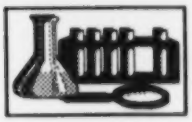
Figure 6

Appendix C. Dictionary and Vocabulary Icon Examples

Dictionary Lesson 2

Thinking

Noun	Verb	Adjective	Adverb	Definition	Example
awareness **self-awareness**		aware		n. understanding, learning, seeing	She went from confusion to awareness.
blindness	**selectively blind**	blind	blindly	v. stop from seeing or understanding	Our culture selectively blinds us.
conception ✔ concept	conceive of	conceivable	conceivably	n. idea, understanding	Esperanza developed a conception of her ideal house.
conflict	conflict			n. disagreement, argument, struggle	The conflict in the book is Esperanza's attempt to understand who she is.
confusion	confuse	confused	confusedly	n. no understanding, poor thinking	She went from an initial state of confusion to awareness.
depth	deepen	**deep**	deeply	adj. think more, consider more carefully	We need to dig more deeply to understand.
	dig more deeply ✔			v. try to understand better by thinking more about it	We need to dig more deeply into the text to understand what the text is really about.
dunce				n. stupid person	The tale was about the traditional folklore dunce.
feminism ✔ feminist ✔				n. belief in equal rights for women	Feminism is a perspective or belief system.
identity identification	**identify with**			v. see yourself as similar to	Esperanza identified with the four skinny trees.
interpretation interpreter	interpret	interpretable		n. way of understanding	Novels were a medium for the interpretation of life.
mystery		**mysterious**	mysteriously	adj. not easy to understand, unknown	The three mysterious old ladies gave Esperanza a wish.
myth mythology		mythical	mythically	n. traditional stories we believe to be true, legend	We share certain cultural myths.
omniscience		**omniscient** ✂	omnisciently	adj. knowing everything	A third person narrator provides the omniscient point of view.
perception	perceive	perceptive	perceptively	n. idea, image, thought, understanding	Esperanza developed a perception of herself as a writer.
perspective ✂				n. point of view, the way you think about something	Feminism is a perspective or point of view.



Research, Academic

Noun	Verb	Adjective	Adverb	Definition	Example
autobiography ✂		autobiographical	autobiographically	n. writing the story of your own life	Mango Street is fiction, so it is not really autobiography.
Bildungsroman				n. a story of growing up and learning about life	Bildungsroman is a German word meaning novel of educational formation.
dissertation				n. the long piece of research and writing you do to complete a doctoral degree (Ph.D.)	I wrote my dissertation on Milton.
fellowship ✔				n. the money you get to study or to do some work, like a scholarship	Cisneros was the recipient of two NEA fellowships.
genre				n. a kind of writing, music or art, a particular style	The genre of the western novel has a long history.
literature		literary		n. the writing of a particular culture or country	Dr. Sanchez teaches Chicano literature.
literature		literary text literary sketch		n. the writing of a culture or a country	The German literature deals with the formative years.
narration narrator	narrate	**narrative**		adj. telling a story	The novel is a narrative art form.
prose				n. writing that is similar to everyday speech, not poetry	Extended prose works began in 17th century France.
specialization	specialize	special	specially	n. the area you know the most about, the area you are an expert in	My area of specialization is 17th century literature.
vignette				n. a French word that means s short descriptive piece of writing	The series of vignettes are short chapters.

Cause-Effect, Change

Noun	Verb	Adjective	Adverb	Definition	Example
abduction	**abduct**			v. kidnapped, stolen	Her great grandmother was abducted by her great grandfather.
advocate advocacy	**advocate**			v. fights for, argues for, pushes for	Feminism advocates political equality.
ambition		ambitious	ambitiously	n. your goals in life, what you want	Her great grandmother was prevented from fulfilling any kind of goals or ambitions.
conflict				n. problem, disagreement, argument, war, struggle	There has to be some kind of conflict to begin with and then some kind of understanding.
decay	decay	decayed decaying		n. decline, die out, fall apart, become unhealthy	The novel has shown signs of decay as an art form.
emergence	emerge	emerging		n. coming out, appearance, recognition	Mango Street signals the emergence of a major new author.
evocation	**evoke**	evocative		v. cause us to think about	The great novels (classics) evoke universal experiences.
formation	form	**formative**	formatively	adj. time of change, formation, growing up years	The novels deal with the formative years.
fulfillment	**fulfill**	fulfilled		n. being satisfied, reaching your goals or dreams	Her great grandmother was prevented from fulfilling any kind of goals or ambitions.
impact	impact			n. influence, cause for change, effect	The novel has had considerable impact on the feminist community.
inevitability		**inevitable**	inevitably	adj. something that is expected to happen, no surprise, happens eventually	The story of adolescence has an inevitable appeal for the novelist.
influence	influence	influential	influentially	n. causes change, affects	The cultural web influences the way we think.
inheritance	**inherit**	inherited		v. to get from your family, usually after someone dies	Esperanza inherited her great grandmother's name.
movement	move			n. change, progress	The Bildungsroman concerns some kind of movement from confusion to awareness.

initiation	initiate initialize	initial ✔	initially	adj. beginning, first	The main character moves from some sort of initial confusion to understanding.
		medieval		adj. like the Middle Ages, typical of the Middle Ages, a period of time from the year 476 to about 1450. Before that was Ancient Times	He wrote a medieval epic called *Parzival*.
modern civilization				n. refers to a time period after the Middle Ages, from about 1450 to the present	The western novel is a product of modern civilization.
potential		potential	potentially	adj. something that can happen in the future	The writer must assess the potential audience.
the 19th century				n. the years 1800-1899	The 19th century was the golden age of the novel

Connectors and Comparisons

Connector	Example	Meaning and use
although	Although she wanted to leave, she knew she would always return.	even though, in spite of the fact that
associated with	There is a kind of sadness that is somehow associated with her name.	connected to, related to, part of
but...as well / but also	It means sadness but it means hope as well. It means sadness but it also means hope.	also, in addition
despite	She said that the tress grow despite the concrete.	in spite of, anyhow, even though
distinguish from	You must distinguish the author from the character in the book.	see a difference between two things
identify with	She identifies with her great grandmother who was also named Esperanza. Esperanza identifies with the trees.	see yourself like another person, understand the other person
in terms of	It is difficult to talk about these divisions in terms of chapters because they are so short.	using the words, using the idea of
on behalf of	Feminists advocate on behalf of women's rights.	for someone, to help someone
per se	We want to understand what a house means to Esperanza, not the House on Mango Street per se, but the ideal house.	Latin - by itself, in itself, only
relies on	The writer relies on your stored knowledge.	uses the method
that's all well and good, but	That's all well and good that she wants to escape, but she must learn she has to come back.	it's OK, but it is not enough; something else is needed, necessary
therefore	Feminism advocates equality and therefore is organized around activity on behalf of women's rights.	thus, as a result, for that reason
thus	Thus although Esperanza wanted a house of her own, she knew she would always return to Mango Street.	therefore, as a result, because of

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Evaluation, Description

Noun	Verb	Adjective	Adverb	Definition	Example
barrenness		**barren**		adj. not producing much, empty	This was a temporarily barren period for the novel.
character characteristic	**characterize**	characteristic	characteristically	v. have the qualities of, be like, be described as	Our beliefs might be characterized as cultural myths.
colloquialism		**colloquial** ✂	colloquially	adj. conversational, not formal language	It makes us of colloquial language instead of very formal language.
desolation		**desolate**	desolately	adj. lonely, ugly, without anything pretty or nice	Mango Street is a desolate landscape.
	enmesh	**enmeshed in** ✂		adj. tangled, caught in a mesh or net	We live enmeshed in this cultural web.
	enshrine	**enshrined in** ✂		adj. held as important, specially remembered, held like in a shrine or holy place	Novels include symbolic realities that are enshrined in religion.
event		**eventful** ✂	eventfully	adj. happening often, frequently happening, many things happening	Novels became more popular and eventful.
flat ✔				n. a kind of apartment	Not a flat. Not an apartment in back.
gap				n. empty space, missing information	The author relies on your knowledge to fill in the gaps left vacant in the text.
	haunt	haunting	**hauntingly** ✔	adv. not easily forgotten, always remembered again and agian	Mango Street is hauntingly lyrical.
harshness		**harsh**	harshly	adj. rough, severe, very difficult	She comes from a socioeconomic background that is particularly harsh on her.
ideal	idealize	**ideal**	ideally	adj. the best possible	Esperanza thinks about the ideal house for her.
literalness		literal	**literally** ✂	adv. actually, really, not figuratively or symbolically	She won't literally escape Mango Street, but she will escape symbolically.
lyric, lyricism, lyricist		**lyrical**	lyrically	adj. lyrics are the words to a song; lyrical writing is therefore beautiful writing	Mango street is hauntingly lyrical.

Appendix D. Normative Descriptive Information and Writing Score Rubrics

Academic Language Assessment Profile
Norm Group Descriptions

Norm Group Descriptions: U.S. High School and International Student ESL*	*Academic Language Level Description*	
Advance Placement English students; Advanced native speakers; Advanced fully bilingual	*Well Prepared*	10 9
College-bound advanced and average native speakers; FEP; fully bilingual	*Prepared*	8
Advanced International ESL; Average native speakers; FEP	*Minimally Prepared*	7
FEP, LEP; At-risk native speakers; Advanced international ESL; High school freshmen	*Under-Prepared*	6 5
LEP; At-risk native speakers; High school freshmen; Intermediate international ESL	*Lacking Academic Language Skills*	4
High school freshmen; LEP; Intermediate international ESL		3
High school freshmen; LEP, NEP; At-risk native speakers; Low intermediate international ESL	*Lacking Academic Language Base*	2 1

* Field test results indicating most likely placement of students from the groups described

Academic Language Assessment Profile
Update to Scoring Descriptions (Oct. 95)

Score	Lecture Notes Characteristics	Lecture Short Answer
10	All lecture points (20) included; obvious note-taking skills used-- abbreviations, arrows, logical ordering, clear, concise phraseology	Addresses Q precisely; sentence structure perfect; original thoughts expressed; academic vocab used
9	Most lecture points (13-19) included; original re-organized thoughts appear in notes; good note-taking skill	Answers Q; uses some original thoughts; good grammatical structures; uses academic vocabulary
8	All necessary points (10-12) included; successful standard; good note-taking; information presented in organized, coherent manner	Answers Q using adequate correct info; some original academic terms used; adequate grammar; may have minor spelling errors but sentence structure is correct
7	Almost all necessary points (8-10) included; some slightly unclear or unimportant info included; only a few abbreviations used in notes	Answers Q, but not precisely or concisely; may have spelling, grammar errors; uses few (1-2) academic terms
6	Less information included (5-8 pts); little abbreviation or concise restatements; obviously confused; few note-taking skills evident	Trouble addressing Q; factual confusion; incomplete answer; no original academic terms used; some grammar and spelling errors
5	Only a few major points included (3-4); no note-taking skills observed; if overhead is in notes, no explanation or rephrasing used; if more points are included, little understanding is evident	Answer too general or incomplete; no original academic terms; unclear, unfocused; frequent grammatical and/or spelling errors
4	Only one or two imp. points included; incomplete phrases; may include unimportant info; little/no evidence of understanding relationship between facts in notes	Answer is wrong; information confused; unclear or unimportant info included; vocab and grammar errors frequent
3	Notes show little understanding of vocab or topic; if overheads are present, no explanation or indication of understanding; shows little or no relationship among facts from lecture	Writing lacks structure; content missing or confused; no academic vocab; many spelling errors
2	Very little writing or only some incomplete words/phrases; all important info left out or unrecognizable	Minimal, unstructured response; no acad vocab; may have missed the point of the question
1	Virtually no notes taken	No response or only a few incomplete phrases; writes, "Don't know"

Score	Reading Notes Characteristics	Reading Question Description
10	Excellent, complete notes and note-taking skills; all necessary points included (13)	Very articulate answer; complete, original; academic vocabulary used correctly; uses Q structure in an original way to construct answer
9	Good notes; included all 12 points; good use of abbreviations in notes	Well-written answer; some verbatim phrases, but much original restatement; uses Q structure
8	Most important points (10-12)included; adequate note-taking & abbrev skills	Answers Q adequately with only minor spelling errors; mostly restated structures from Q; adequate contrast between Cog - Behav evident
7	Covered some points (8-9); some skills selecting important information; some missing info; may indicate some comprehension problems with subject	Answers Q but with some grammar and/or spelling errors; some contrast between C-B; some missing info
6	Much verbatim (6-8 pts); more info missing; fewer skills in selecting important info; may have taken notes on wrong section	Answers Q using mostly verbatim from notes; more spelling and grammar errors; contrast of C-B minimal; may have read wrong section
5	Few notes (4-6 pts); little comprehension evident; few note-taking skills; little use of abbrev's; mostly verbatim; often includes unimportant info; wrong section may have been read	Doesn't address Q properly; writing mostly verbatim from notes; many grammar / spelling errors; some unimportant info; wrong, incomplete, or NO mention of C-B contrast; may focus on aspects of cog vs behav **learning** rather than the aspects of cog vs behav **explanation of learning**
4	Few notes or all notes copied verbatim; little evidence of understanding the concepts read; possibly misunderstood some directions	Answer is attempted but wrong or confused; frequent grammar errors; some unimportant info; often no contrast between C-B
3	No note-taking skills; any info is copied verbatim from reading, often in incomplete phrases; little evidence of comprehension; notes may be on wrong section	Writing lacks structure or originality; only incoherent verbatim phrases; often no contrast of C-B; may be confused by Q
2	Minimal unstructured list of verbatim words/phrases; almost all writing is copied from reading selection	Didn't answer Q; only verbatim phrases or list of facts taken from notes; much confusion with info
1	No meaningful notes; only verbatim words or phrases taken at random from reading selection	No answer or only a minimal list of phrases copied verbatim from notes

ACADEMIC LANGUAGE ASSESSMENT PROFILE
For Post-Test - Lecture Notes/Short Answer (Apr. 96)

Score	Lecture Notes Characteristics	Lecture Short Answer
10	All lecture points (18) included; obvious note-taking skills, i.e., abbreviations, arrows, logical ordering of facts; clear and concise; selects important facts well	Addresses Q precisely; sentence structure perfect; expresses original thoughts; uses academic vocabulary
9	Most important points (16-17) included; original re-organized thoughts appear; good note-taking skills; able to choose between imp. and unimport. facts	Answers Q well; some original phrases used; good grammatical structure; uses academic vocab
8	All necessary points (13-15) included; successful standard; good note-taking skills; info organized and coherent; good use of abbrev's and icons	Answers Q using adequate info; some original structures apparent; adequate grammar; may have minor spelling errors
7	Almost all necessary points (9-12); some slightly unclear or unimportant info included; only a few abbrevs used	Answers Q, but not precisely or completely; may have spelling or grammar errors
6	Less information included (5-8 pts.); little use of abbrevs or icons; obvious confusion evident	Trouble addressing Q; somewhat confused with facts or focus of Q; more grammar/spelling errors
5	Only a few points included (3-4); no note-taking skills apparent; if overhead is included, no explanation given of its meaning; if more points are included, little understanding is evident	Answer is too general or incomplete; does not address Q directly; unclear; unfocused; may have grammatical and/or spelling errors
4	Only few points (1-2) included which make sense; may include unimportant information; no note-taking skills; may have little or no understanding of facts	Answer is attempted but wrong; information confused; unclear or unimportant info included; vocab and/or grammar errors frequent
3	Notes show little understanding of topic; little or no relationship between facts; if overheads are present, not explained	Writing lacks structure; student may admit confusion with Q; also may have spelling errors
2	Very little writing or only some incomplete words/phrases included; all important information left out or unrecognizable	Minimal, unstructured response; no academic vocab; missed the point of the question
1	Virtually no notes taken	No response or only a few incomplete phrases; student says: "Don't know."

Academic Language Assessment Profile
Scoring Descriptions for **Post-test**

Score	Reading Notes Characteristics	Reading Question Characteristics
10	Excellent, complete notes and note-taking skills; all necessary points included (13)	Very articulate answer; complete, original; academic vocab used correctly; used topic / intro sentence well
9	Good notes; most important points included (11-12); good use of abbreviations & icons, etc.	Well-written answer; some phrases verbatim from notes, but much original restatement used; good contrast between ST - LT memory
8	Adequate notes; ability to choose between important / unimportant note-taking skills (abbrevs / icons)	Answers Q adequately w/ few errors in spelling or grammar; adequate contrast between ST-LT memory
7	Covered most points (8-9); some skills selecting important info; some missing info; fewer note-taking skills evident, i.e. less use of abbreviations	Answers Q, but often with little creative structuring; some contrast between ST-LT; answer may not be completely precise or focused, or may include some awkward grammatical structures
6	Some important info missing; (6-7 pts.); less able to select important information; uses few abbreviations	More evidence of difficulty with English; answers Q using most notes verbatim; may have grammar/spelling errors; minimal contrast between ST-LT; more confused with subject and question format
5	Few notes (4-6 pts.); little evidence of comprehension; few note-taking skills; little or not use of abbrevs; may include unimportant info; may have taken notes on wrong section	Doesn't address Q completely or properly; writing mostly verbatim from incomplete notes; may include many grammar/spelling errors or awkward structures (as they appear n notes)
4	Few notes or all notes copied verbatim from reading selection; little evidence of understanding the concepts read	Answer is attempted but confused or wrong; (perhaps because wrong section read); frequent grammar errors; some unimportant info; mainly copied structures and abbrevs as they appeared in student's notes
3	No note-taking skills evident; any info is copied verbatim from the reading section; little evidence of comprehension; may be on wrong section	Writing lacks structure or originality; contains only verbatim phrases copied from notes, which are often incoherent
2	Minimal unstructured list of verbatim words/phrases; almost all writing is copied from reading	Didn't answer Q; only copied verbatim phrases or list of facts taken from notes; much confusion with information
1	No meaningful notes; only words or phrases copied at random from reading section	No answer or only a minimal list of phrases copied verbatim from notes

Appendix E. Academic Language Pretest

California State University, Fresno

And

Fund for the Improvement of Postsecondary Education

U.S. Department of Education

Assessment of Academic Language Proficiency Project

Form A

Form A

13 Minutes

LECTURE NOTES

Use the following two pages to take notes from the lecture. The lecture is about 11 minutes long. The information in your notes will be used to answer questions later. The notes you take will be scored for completeness and accuracy.

Continue Taking Notes on Next Page

California State University, Fresno
And
Fund for the Improvement of Postsecondary Education
U.S. Department of Education

Assessment of Academic Language Proficiency Project

Student Information Sheet

There are several different tasks included in this assessment. There is no pass or fail mark on this test. It will provide information about your strengths and any weaknesses you may have related to academic language skills. Some of the questions are difficult; we don't expect everyone to answer all the questions correctly. Just try your best. Work on each part of the test as your teacher instructs you to. Don't go back to work on a part that is finished or skip ahead to a new section.

Please fill out the information below before you begin the first part of the assessment. When the test is corrected, your scores and personal information will only be identified by number (not name) for research and development purposes to ensure confidentiality.

Name _____ Age_____ Sex ___ Year in School _____

School _____ Teacher _____ Class _____

Race/ethnicity _____ Languages spoken at home _____

What languages do your parents speak? _____

What languages other than English
that you **read and write**? **How well?**

_____	___excellent	___good	___average	___fair	___poor
_____	___excellent	___good	___average	___fair	___poor
_____	___excellent	___good	___average	___fair	___poor

Do you plan to go to college? _____

How many years of education are you planning to have after high school? _____

What job/profession do you want to have when you complete your education? _____

How good are your **English** skills **for college work**?

My **reading** ability is	___excellent	___good	___average	___below average	___poor
My **writing** ability is	___excellent	___good	___average	___below average	___poor
My **listening** ability is	___excellent	___good	___average	___below average	___poor
My **speaking** ability is	___excellent	___good	___average	___below average	___poor

Name _____

LECTURE NOTES SHORT ANSWER

Form A 2 Minutes

USE COMPLETE SENTENCES FOR YOUR ANSWER

What was the unconditioned response in Pavlov's experiment? Why was it called unconditioned?

NAME _____ **Dictation** 3

Listen to each sentence and write it down just as you hear it.

Sentence 1.

_____

_____

Sentence 2.

_____

_____

Sentence 3.

_____

_____

Sentence 4.

_____

_____

_____

Sentence 5.

_____

_____

_____

Sentence 6.

_____

_____

_____

PART A

	I don't recognize this word.	I've seen this word before but I don't know what it means.	I think I know what this word means but I am not 100% sure.	I know what this word means and I can probably use it correctly in a sentence.	I know this word and I have used it recently in speaking or writing.
	1	2	3	4	5
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
13. _____					
14. _____					
15. _____					
16. _____					
17. _____					
18. _____					
19. _____					
20. _____					
21. _____					
22. _____					
23. _____					
24. _____					
25. _____					

PART B

	I don't recognize this word.	I've seen this word before but I don't know what it means.	I think I know what this word means but I am not 100% sure.	I know what this word means and I can probably use it correctly in a sentence.	I know this word and I have used it recently in speaking or writing.
	1	2	3	4	5
1. identical					
2. culture					
3. assumption					
4. predictable					
5. experimental					
6. capacity					
7. hence					
8. significant					
9. consequences					
10. probability					
11. specifically					
12. verification					
13. demonstrate					
14. reluctance					
15. emphasis					
16. trend					
17. explicit					
18. ambiguity					
19. inference					
20. derivation					
21. socioeconomic					
22. speculate					
23. notwithstanding					
24. arbitrary					
25. empirical					

Name _____

SENTENCE COMPLETION READING QUIZ

Directions: On this test, you will find four choices of words in each blank.
Circle the word or words that make the sentence correct.

Example: *Pavlov* [*(used) using useful use*] *dogs in his research. He studied their* [*respond responding responsive (response)*] *to food and other stimuli.*

Ivan Petrovich Pavlov

Pavlov, a Russian physiologist who [living lived live lives] (1) from 1849-1936, [was knew was knowing was known] (2) as quite a [successful successfully success successes] (3) medical scientist, but as a [theory theoretical theorist theorize] (4) he was not [near nearly nearness nearer] (5) as famous. His [theories theory theorist theoretical] (6) about the relationship between physiology and mental illness were not [wide wider widely widest] (7) accepted by the other [researcher researching researches researchers] (8) of his day. They were just not [interesting interested interest interests] (9) in Pavlov's many [suggests suggestion suggestions suggested] (10) about mental illness.

Despite his dependence on money from the government [does did is doing to do] (11) his research and pay his [employers employees employment employability] (12), Pavlov proved to be very out-spoken against the Communist party [which what when while] (13) he often [public publicizes publicly publicity] (14) denounced.

TURN PAPER OVER AND CONTINUE ON THE OTHER SIDE

He has / Had he / He had / Has he [15] supported the Communists more, perhaps he would have / wouldn't have / will have / won't have [16] received more money to do his work.

Such a government expected uniformed / ~~uniforms~~ / uniformity / uniform [17] behavior from there / it's / its / they're [18] *citizens and did not generally support* people who, like Pavlov, was disagreeing / is disagreeing / were disagreeing / disagrees [19] with government policies. Pavlov, be / being / was / is [20] a young scientist when he met his wife, had little money. He is / It is / They are / You are [21] reported that when they first got married, ~~He~~ force / forced / were forcing / were forced [22] to live apart because they had no money. Later, however, they led a tradition / traditions / traditionally / traditional [23] married life. Pavlov attributed much of his professions / professional / professionally / profession [24] success to his wife, whose / whom / who / who's [25] life was devoted to taking care of she / she's / her / hers [26] husband and supporting his work. In his personal habits Pavlov was quite predictable / predicted / predict / predictably [27], never missing an appointment, it was claimed, and arrived / arrives / arrive / arriving [28] on time in the laboratory even when there was / is / were / are [29] rioting takes / taken / taking / took [30] place on the streets outside. Pavlov's accomplish / accomplishing / accomplished / accomplishments [31] were honored by his country and the world when / while / whenever / which [32] he was awarded the Nobel Prize for Physiology in 1904.

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TEXTBOOK READING 15 Minutes

NAME _____

Read the following from Dr. Tanner's assigned textbook. While you are reading,

UNDERLINE THE IMPORTANT INFORMATION

After you finish the reading, go back to the paragraphs that are in **bold print (dark print)** and take notes on these paragraphs in the space provided. Do not write complete sentences from the reading. You will be using your notes to write an answer to a question. Your notes should include the important information from the bolded reading section only.

Your teacher will collect this page after you have read, circled, underlined, and taken notes. Be sure YOUR NAME is on this page.

PLEASE TURN THIS PAGE OVER FOR READING

BE SURE TO **UNDERLINE** THE IMPORTANT INFORMATION AS YOU READ.

LEARNING

Conditioning is one form of learning. Learning is the acquisition of information and knowledge, of skills and habits, and of attitudes and beliefs. It always involves a change in one of these areas--a change that is brought about by the learner's experiences. Accordingly, psychologists define learning as all changes in behavior that result from experience, providing these changes are relatively permanent, do not result simply from growth or maturation, and are not the temporary effects of factors such as fatigue or drugs. Drug abuse was a big problem especially in the 1960s.

Change is interesting. Not all changes involved in learning are obvious and observable. For example, learning often involves changes in the learner's disposition--that is, in the person's inclination to do or not to do something. Hence changes in disposition have to do with motivation. Such changes cannot always be observed by teachers and others but are no less real or important.

Learning involves not only changes in disposition, but also changes in capability--that is, changes in the skills or knowledge required to do something (Gagne, 1985). Like changes in disposition, changes in capability cannot always be observed directly. To determine whether or not students' dispositions or capabilities have changed following instruction, teachers must provide them with an opportunity to engage in the relevant behavior. In most countries, teachers do not earn very much money. If instruction affects learners in such a way that their behaviors after instruction are observably different from those before instruction, we can conclude that learning has occurred. Even adults continue to learn all their lives.

BEHAVIORISM AND COGNITIVISM

Two major groups of theories relate to learning: behaviorism and cognitivism. Later you will read about several minor theories. Differences between these two major groups of learning theories center mainly on the questions each tries to answer. Behaviorism tries to explain simple behaviors--observable and predictable responses. Accordingly, it is concerned mainly with conditions (called stimuli) that affect organisms and that may lead to behavior, as well as with simple behaviors themselves (responses).

Behavior-oriented (or behavioristic) researchers attempt to discover the rules that govern the formation of relationships between stimuli and responses (the rules of conditioning). For this reason, behavioristic theories are often referred to as stimulus-response (S-R) theories. Researchers often use just one letter or symbol (such as S-R) to represent a word or concept.

In contrast to behaviorism, cognitive approaches deal primarily with questions relating to cognition, or knowing. Cognitive theorists are concerned with how we develop a fund of knowledge. Knowledge is power. Cognition-oriented researchers attempt to understand the nature of information--how it is acquired and organized by learners; how it can be recalled, modified, applied, and analyzed; and how the learner understands, evaluates, and controls the activities involved in cognition (metacognition).

COGNITIVISM

In a behavioristic analysis of learning, the primary emphasis is on the external conditions that affect behavior. In contrast to behaviorism, cognitivism involves "the scientific study of mental events" (E. Gagne, 1985, p. 4). Gagne was a professor at University of Iowa in the 1970s. Mental events have to do with acquiring, processing, storing, and retrieving information. Computers also process, store, and retrieve information. The primary emphasis in a cognitive analysis of learning is on the learner's mental structure, a concept that includes not only the learner's previous related knowledge, but also the strategies that the learner might bring to bear on the present situation. In this view, the explicit assumption is that learners are far from equal. It is the individual's preexisting network of concepts, strategies, and understanding that makes experience meaningful. Although learners may not be equal in the classroom, they are considered equal in a democracy.

Cognitivism focuses on knowledge; hence cognition is knowing. Cognition is a word used often in psychology books. One of the major emphases of cognitive approaches concerns the ways information is processed and stored. This departs dramatically from the major emphasis of a behavioristic approach, which involves behavior and its consequences.

READING SUMMARY

NAME _____

Directions:

1. After you have completed reading the Textbook Reading exercise, open this booklet and use the space provided to take notes on the last part of the reading exercise. This is the part that is in bold print and in a box. You will have approximately 7 minutes to take notes on this part of the reading. Do not use complete sentences to take your notes. Write the important information from the reading in the space provided.

2. After you have taken notes on the last part of the reading, your teacher will collect the reading page and you will use the information in your notes to write a summary paragraph about that part of the reading. Please be sure to write in complete sentences and use your own words when you write this summary. You will have approximately 10 minutes to write this paragraph.

TAKE READING NOTES HERE

Form A or B

7 Minutes

Reading Notes

Take notes from the section of the reading that is **in bold (dark print)** on this page. Your notes should NOT be complete sentences from the reading. Your notes should be only the important information in a short form. You will be using these notes to help you answer the question on the next page.

Form A **READING QUESTION** 10 Minutes

Use the notes you took from the reading to answer the following question about the bolded section of the reading. Be sure to organize your writing and use complete sentences in your answer.

What are the most important aspects of the cognitive explanation of learning, and how are these different from the behaviorist explanation of learning?

Now that the test is finished and you have had a chance to practice these language skills, answer the following question again:

How good are your English skills **for college work**?

My **reading** ability is	___excellent	___good	___average	___below average	___poor.
My **writing** ability is	___excellent	___good	___average	___below average	___poor.
My **listening** ability is	___excellent	___good	___average	___below average	___poor.
My **speaking** ability is	___excellent	___good	___average	___below average	___poor.

Appendix F. Academic Language Posttest

California State University, Fresno
And
Fund for the Improvement of Postsecondary Education
U.S. Department of Education

Assessment of Academic Language Proficiency Project

Student Information Sheet
Post-test

There are several different tasks included in this assessment. There is no pass or fail mark on this test. It will provide information about your strengths and any weaknesses you may have related to academic language skills. Some of the questions are difficult; we don't expect everyone to answer all the questions correctly. Just try your best. Work on each part of the test as your teacher instructs you to. Don't go back to work on a part that is finished or skip ahead to a new section.

Please fill out the information below before you begin the first part of the assessment. When the test is corrected, your scores and personal information will only be identified by number (not name) for research and development purposes to ensure confidentiality.

Name _____ Age_____ Sex ___ Year in School _____

School _____ Teacher _____ Class _____

Race/ethnicity _____ Languages spoken at home _____

What languages do your parents speak? _____

What languages other than English
that you **read and write**? **How well?**

_____	___excellent	___good	___average	___fair	___poor
_____	___excellent	___good	___average	___fair	___poor
_____	___excellent	___good	___average	___fair	___poor

Do you plan to go to college? _____

How many years of education are you planning to have after high school? _____

What job/profession do you want to have when you complete your education? _____

How good are your **English** skills **for college work**?

My **reading** ability is	___excellent	___good	___average	___below average	___poor
My **writing** ability is	___excellent	___good	___average	___below average	___poor
My **listening** ability is	___excellent	___good	___average	___below average	___poor
My **speaking** ability is	___excellent	___good	___average	___below average	___poor

LECTURE NOTES

Use the following two pages to take notes from the lecture. The lecture is about 11 minutes long.

The information in your notes will be used to answer questions later.

Continue Taking Notes on The Next Page

Name _____

POST-TEST LECTURE NOTES SHORT ANSWER

Lecture Short Answer Question Form B **2 Minutes**

USE COMPLETE SENTENCES FOR YOUR ANSWER

Skinner said that there are no universal reinforcers. Explain what this means.

_____

_____

_____

_____

_____

_____

_____

NAME _____ Dictation Post-Test

Listen to each sentence and write it down just as you hear it.

Sentence 1. _____

_____

Sentence 2. _____

_____

_____

Sentence 3. _____

_____

Sentence 4. _____

_____

_____

Sentence 5. _____

_____

_____

Sentence 6. _____

_____

_____

NAME _____

Post-test Vocabulary Self-Assessment A

	I don't recognize this word	I've seen this word before but I don't know what it means	I think I know what this word means but I am not 100% sure	I know what this word means and I can probably use it correctly in a sentence	I know this word and I have used it recently in speaking or writing
	1	2	3	4	5
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
13. _____					
14. _____					
15. _____					
16. _____					
17. _____					
18. _____					
19. _____					
20. _____					
21. _____					
22. _____					
23. _____					
24. _____					
25. _____					

NAME _____

Post-Test Vocabulary Self-Assessment B

	I don't recognize this word.	I've seen this word before but I don't know what it means.	I think I know what this word means but I am not 100% sure.	I know what this word means and I can probably use it correctly in a sentence.	I know this word and I have used it recently in speaking or writing.
	1	2	3	4	5
1. primarily	_____	_____	_____	_____	_____
2. acquire	_____	_____	_____	_____	_____
3. assumption	_____	_____	_____	_____	_____
4. overwhelmingly	_____	_____	_____	_____	_____
5. significant	_____	_____	_____	_____	_____
6. external	_____	_____	_____	_____	_____
7. capacity	_____	_____	_____	_____	_____
8. ongoing	_____	_____	_____	_____	_____
9. consciousness	_____	_____	_____	_____	_____
10. retrieve	_____	_____	_____	_____	_____
11. passive	_____	_____	_____	_____	_____
12. portrays	_____	_____	_____	_____	_____
13. undergoes	_____	_____	_____	_____	_____
14. essence	_____	_____	_____	_____	_____
15. superficial	_____	_____	_____	_____	_____
16. trivial	_____	_____	_____	_____	_____
17. fleeting	_____	_____	_____	_____	_____
18. speculate	_____	_____	_____	_____	_____
19. conceptual	_____	_____	_____	_____	_____
20. bulk	_____	_____	_____	_____	_____
21. transference	_____	_____	_____	_____	_____
22. accordingly	_____	_____	_____	_____	_____
23. physical	_____	_____	_____	_____	_____
24. synthesizing	_____	_____	_____	_____	_____
25. distinctive	_____	_____	_____	_____	_____

Name _____

Post-Test Sentence Completion Exercise

On this part of the test you will find four choices of words in each box. Circle the word that makes the sentence correct.

Example: Skinner [will become / became / becomes / is becoming] a professor in 1939.

B.F. Skinner, a famous [behavior / behaviorism / behaviorist / behavior], received his Ph.D. from Harvard University in 1931. He was one of the most [influences / influenced / influentially / influential] psychologists of [the / this / that / these] twentieth century. Skinner was [great / greatly / greater / greatest] influenced by both Pavlov and Thorndike, [who / whom / whose / who's] theories he expanded upon. Like his predecessors, [Watson / Pavlov / Thorndike / Skinner] studied the behavior of animals in order to understand human [learned / learning / learns / learn]. [In contrast / However / Subsequently / Although] Skinner used pigeons in his research, he tried to [generate / generalize / generalized / generalizable] their behavior to [humans / humanize / humanized / human] just as the earlier behaviorists [do / are doing / has done / had done]. During World War II, Skinner's [trained / trains / training / trainer] of pigeons to pilot torpedoes and bombs was part of the war [research / researching / researchable / researched] effort. The [plan / planning / planned / plans] use of the birds as missile guides, however, was never [implemented / implementing / implements / implement]. Skinner gained some

measurable
measure
measuring
measured
of
publicly
publicize
publicity
public
attention through
invented
inventing
invention
invents
of his Air-Crib. This was a large, soundproof, germ-free, air-conditioned box
designed
designs
designing
design
to serve as a mechanical babysitter. Skinner believed that this box provided an
optimum
optimally
optimal
optimize
environment for child
growth
to grow
grown
grew
during the first two years of life.
Usefully
Used
Using
Useful
various kinds of
experimental
experimentally
experimentation
experimented
equipment that he invented, he trained pigeons to perform quite
except
exceptional
exceptionally
excepted
actions. For example, he trained pigeons to play ping-pong. One of Skinner's famous inventions is
used
usefully
using
useful
by drug companies to observe how a drug may
modifying
modifies
modify
modifiable
animal behavior. The step-by-step
trained
training
trains
trainer
of research animals led Skinner to the principles of programmed learning through the use of
teaching
teaches
teacher
teach
machines.

TEXTBOOK READING 15 Minutes

Post-Test

NAME _____

Read the following from Dr. Tanner's assigned textbook. While you are reading,

UNDERLINE THE IMPORTANT INFORMATION

After you finish the reading, go back to the paragraphs that are in **bold print (dark print)** and take notes on these paragraphs in the space provided. Do not write complete sentences from the reading. You will be using your notes to write an answer to a question. Your notes should include the important information from the bolded reading section only.

Your teacher will collect this page after you have read, circled, underlined, and taken notes. Be sure YOUR NAME is on this page.

PLEASE TURN THIS PAGE OVER FOR READING

Post-test Textbook Reading NAME _____ **15 Minutes**

Read the following from Dr. Tanner's assigned textbook. While you are reading, **UNDERLINE THE IMPORTANT INFORMATION ON THE WHOLE PAGE, INCLUDING THE BOX.**

After you finish the reading, go back to the paragraphs that are in **bold print (dark print)** and take notes on these paragraphs in the space provided at the end of the test booklet. Do not write complete sentences from the reading. You will be using your notes to write an answer to a question. Your notes should include the important information from the reading section. Your teacher will collect this page after you have read, circled, underlined, and taken notes. Be sure YOUR NAME is on this page.

A BASIC INFORMATION-PROCESSING MODEL

The widely-accepted basic model portrays the human information processor in terms of three types of information storage: short-term sensory storage, short-term memory, and long-term memory. Each type of storage is distinct from the others primarily in terms of the nature and extent of the processing that information undergoes. Processing refers to activities such as organizing, analyzing, synthesizing, rehearsing, and so on.

The information-processing model attempts to represent how we acquire information, how we sort and organize it, and how we later retrieve it. The model is, in effect, a learning and memory model that begins with the raw material of all learning experiences: sensory input.

SENSORY MEMORY: Our sensory systems (vision, hearing, taste, touch, smell) are sensitive to an overwhelmingly wide range of stimulation. Clearly, however, they respond only to a fraction of all available stimulation at any given time; the bulk of the information available in this stimulation is never actually processed--that is, it never actually becomes part of our cognitive structure.

The label sensory memory refers to the fleeting (less than one second) and unconscious effect on us of stimulation to which we pay no attention. Sensory memory is highly limited, not only in terms of the length of time during which stimulus information is available for processing, but also in terms of the absolute amount of information available.

SHORT-TERM MEMORY: The information-processing system of which cognitive psychology speaks makes use of a number of different activities with a common goal: making sense of significant sensory input and, at the same time, ignoring or discarding more trivial input. A great deal of sensory input that is not attended to does not go beyond immediate sensory memory. Paying attention is, in fact, one of the important activities of our information-processing system. It is the means by which input is transferred from sensory to short-term storage.

In essence, short-term memory consists of what is in our immediate consciousness at any given time. For this reason, short-term memory is often called working memory. One of the important characteristics of short-term memory is that it is highly limited in capacity. Following various memory experiments, Miller (1956) concluded that its average capacity is around seven discrete items (plus or minus two); that is, our immediate conscious awareness is limited to this capacity, and as additional items of information come in, they push out some that are already there.

LONG-TERM MEMORY

The type of memory that is clearly of greatest concern to educators is long -term memory. Long-term memory includes all of our relatively stable information about the world--all that we know but that is not in our immediate consciousness. In fact, one of the important distinctions between short-term and long-term memory is that short-term memory is an active, ongoing, conscious process, whereas long-term memory is a more passive, unconscious process. Accordingly, short-term memory is easily disrupted by external events--as we demonstrate when we lose our "train of thought" due to some distraction. In contrast, long-term memory cannot easily be disrupted.

The transference of material from short-term to long-term memory involves more than simple rehearsal: It involves encoding, a process whereby meaning is derived from experience. To encode information involves information processing, an event that can occur at different levels. Not all material in long-term memory is processed to the same level. If subjects are asked to learn and remember a word, they can process it at a very superficial level, paying attention only to its physical appearance. At a somewhat deeper level, they might pay attention to the word's meaning, and at the deepest level, to the word's conceptual relations.

Reading Notes and Reading Short-Answer

Post-Test

NAME _____

Open this booklet and use the space on the left side to take notes from the reading section that is in the box (bolded). Give the teacher the reading page after you have taken the reading notes from this section. Then use your notes to answer the reading question on the right side of the page.

TAKE READING NOTES HERE

Post-Test

7 Minutes

Reading Notes

Take notes from the section of the reading that is **in bold (dark print)** on this page. Your notes should NOT be complete sentences from the reading. Your notes should be only the important information in a short form. You will be using these notes to help you answer the question on the next page.

Post-Test **READING QUESTION** 10 Minutes

Use the notes you took from the reading section on the opposite page to answer the following question. Be sure to organize your writing and use complete sentences in your answer.

What are the most important characteristics of short-term and long-term memory, and in what ways are they different from each other?

Now that the test is finished and you have had a chance to practice these language skills, answer the following question again:

How good are your English skills **for college work**?

My **reading** ability is ___excellent ___good ___average ___below average ___poor.
My **writing** ability is ___excellent ___good ___average ___below average ___poor.
My **listening** ability is ___excellent ___good ___average ___below average ___poor.
My **speaking** ability is ___excellent ___good ___average ___below average ___poor.

Appendix G. Presentations and Publications on Project

A brief report on the project appeared in Language Testing Update, Issue 14, Autumn, 1993, p. 65. (see Appendix A).

Refugees in the Educational System. Invited address. Refugee Information Exchange Conference. October 22, 1993, Anaheim.

Assessing Academic Language Proficiency: Are They Ready for College? Saroyan CATESOL Annual Meeting. March, 1994, Fresno.

Invited presentation on project, Bilingual Education Workshop, California State University Educational Opportunity Program. April 13, 1994, Fresno.

Assessing Academic Language Proficiency. California Educational Research Association Annual Meeting. November, 1994, San Diego.

The role of academic vocabulary in performance of academic language tasks. American Educational Research Association Annual Meeting. April 22, 1995, San Francisco.

Academic language and student comprehension of lectures, textbooks, and test questions. Talking About Teaching Week (campus-wide faculty development meetings). Invited presentations, April 5 and 6, 1995, California State University, Fresno.

Student judgments of content importance in academic language tasks. American Association for Applied Linguistics Annual Meeting. March 28, 1995, Long Beach.

Defining and assessing cognitive academic language proficiency. Teachers of English to Speakers of Other Languages (TESOL) Annual Meeting. March 29, 1995, Long Beach.

Students' academic language proficiency and development: Are they ready for college yet? (Invited presentation). Consumnes River College. September 8, 1995, Sacramento.

Using content analysis to support test construction and validation. Text Analysis and Computers. September 18-21, 1995. Mannheim, Germany.

Teaching academic vocabulary in the secondary setting. International Reading Association 41st Annual Convention. April 28-May 3, 1996. New Orleans.

The underprepared college student: Linguistic barriers to comprehension of lectures and textbooks. 17th Annual Central California Research Symposium. May 2, 1996, Fresno, California.

Effectiveness of academic instruction in the first language for at-risk high school students. With R.A. DeVillar. 17th Annual Central California Research Symposium. May 2, 1996, Fresno, California.